Med.
D

151

DOMINION
MEDICAL MONTHLY
AND ONTARIO MEDICAL JOURNAL

EDITED BY

GRAHAM CHAMBERS, B.A., M.B.   WALTER McKEOWN, B.A., M.D.

T. BEDFORD RICHARDSON, M.D.,
Associate Editor

AND

GEORGE ELLIOTT, M.D.
Managing Editor

VOLUMES XXX, XXXI.

319450
17.9.35

TORONTO:
GEORGE ELLIOTT, PUBLISHER
203 BEVERLEY STREET
1908

CONTENTS OF VOLUMES XXX, XXXI.

Page.
Life, The Medical Student's 423
Liver, Large Echinococcus Cyst of 493
Lung, Surgical Treatment of Tuberculous Cavities of the... 436
List, The Physician's Visiting (1909) 503
Licenses, Should Doctors be the Issuers of Marriage? 507

Matters Medical, Mr. Dooley, (M.D.) 281
Medicine and Therapeutics, Handbook of 293
Milk Commission of Canadian Medical Association 297
Milk, Clean 387
Myxedema—Hypothyroidea, Complete 411
Medicine, Husband's Practice of 418
Milk, The Term Certified 505

News Items--299, 346, 389, 426, 474, 509
Nurses, Hygiene for 419
Newspaper, A Western 471
Nurses, Obstetrics for 499

Protheses, Subcutaneous Hydrocarbon 293
People, The Surgical Rights of the 317
Peritonitis, The Treatment of Diffuse Suppurative, Without Drainage 337
Poisoning by Arsenuretted Hydrogen or Hydrogen Arsenide. 380
Peritonitis, The Treatment of Diffuse Suppurative, Without Drainage 457
Platform, The Democratic 471
Phenolphthalein, The Action and Dosage of 483
Physiology, The Students' Handbook of 503

Questions and Answers, State Board 293

Page.
Reflexes, The Value of the, in Diagnosis 307
Reeve, The Retirement of Dr. R. A. 508

Surgery, Thoroughness in Abdominal 286
Schools, Medical Inspection of.. 349
Studies, Borderland 380
Surgery, Contributions to the Science of Medicine and 381
Squint 403
Student The Outlook for the Medical 421
System, Intermittent, Continuous Filtration 453
Salt, The Local Use of Epsom.. 472
Stomach, Acute Dilatation of—Report of an Unusual Case... 488
Skin and the Eruptive Fevers, Diseases of 499
Surgery, Gynecology and Abdominal 500
Surgery, A Text-Book of Operative 501

Thoughts, Fads, Facts and Fancies, Medical 365
Test, The Calmette Tuberculin. 383
Testimony, Expert Medical 397
Tuberculosis, Pulmonary, and its Complications 419
Tetany, Case of Gastric 491
Treatment, Vaccine Therapy and the Opsonic Method of 498

Ulcers, Report of Three Cases of Gastric, with Perforation ... 449

Voltaire, The Works of 381

Winnipeg 297
Women, A Text-Book of Diseases of 498

Young, Dr. W. A. 508

1.

Dominion Medical Monthly

And Ontario Medical Journal

Vol. XXX. TORONTO, JANUARY, 1908. No. 1.

Original Articles.

THE APPOINTMENT OF MINISTERS OF HEALTH.

By F. G. Bushnell, M.D.,
Pathological Department, Sussex County Hospital, Brighton, England.

On previous occasions eminent individuals, more especially members of our profession, as well as authoritative associations, have given expression to the need that exists for Ministers of Public Health. A meeting of this kind affords a thoroughly suitable opportunity for obtaining a full knowledge of the views, based on the individual experience, of those present; of collating a summary; and of so discussing the subject, that a sound conclusion may be arrived at, and a resolution proposed which should result in Government inquiry and action.

Authoritative Views on Such Appointments.

After a preliminary study of the subject, I obtained the views of many hundreds of persons, sanitary associations and authorities (assisted largely by Miss C. Cochrane, a member of the Sanitary Institute of Great Britain, who takes an active interest in the subject).

Among those who favor the appointment, which the title of my paper sets forth, are the British and Canadian Medical Associations, the Sanitary Institute and the Royal Institute of Public Health of Great Britain, and the Manchester and Salford Sanitary Associations, the Imperial Vaccination League, the County Council of the West Riding of Yorkshire, the Institute of Sanitary Engineers, the Workmen's National Housing

Association, the Childhood Society, many eminent physicians of various countries, members of Parliament, Medical Officers of Health, and Medical Societies.

At once I may say that, though I am not *Laudator temporis acti*, yet my paper is not intended to deprecate the past work of one or any State Department of Public Health. It is not read with an intention of damaging any existing institution by criticism, but rather with the sincere desire of adding to the powers and scope and utility of those that exist; of bringing to your minds the need for national safeguards based on scientific medicine proportionate to the growing needs of our densely populated lands.

THE VALUE OF A LEADER.

The first query that comes to the lips is, "Are there reasons for supposing that a Minister at the head of an independent Health Department would lead to an increase of the powers for and the improvement of the health of the community?" One may reply by reasoning from analogy. If one turns to the past annals of science, statecraft, religion, war, commerce or exploration, and indeed any department of human activity, we have brought before us irresistibly the power of the *individual*, each in his sphere. It is the *individual* who leads the way; others follow in his footsteps. It is the advocate and leader of men who has the power to group the many about a central idea.

To-day the Kaiser Wilhelm, Monsieur Pasteur, Lord Lister, Mr. Joseph Chamberlain, Mr. Pierpont Morgan or "General" Booth—emperor, scientists, minister, company promoter or religionist—possess the "divine right" of leadership. And so it has been since the days of the Messiah and Mahomet. One man can achieve in a year what may take most people a lifetime.

THE ABOLITION OF DISEASE.

To illustrate the enormous value of organized measures, you have only to be reminded—

That the Ministry of Public Health in Germany has practically abolished smallpox;

That the President of the English Local Government Board has practically extinguished rabies in Engand by the simple precaution of preventing the transference of infection from one dog to another;

That the practical application of bacteriological knowledge to surgery has enabled Lord Lister to be the savior of untold numbers of human lives.

So, too, leprosy has disappeared from England in the past.

Such are the merest reminiscence of the possibilities of scientific and sanitary measures for the prevention of disease.

The Ministers and the Forces of Disease.

An enumeration of the hostile forces that would be arrayed against such a Minister is appalling; the success of their ravages is only too apparent in the annual reports of Public Health Departments. They exact such a toll as human foes, however relentless, would never impose. They are indeed the forces of darkness, and there is nothing of good in them.

The sixty-second report of the Registrar-General of the United Kingdom for 1899 gives the *total number* of deaths as 581,799, or 18.3 per thousand. This compares as follows with other countries:—

United Kingdom, 18.3; England and Wales, 18.3; Scotland, 18.6; Ireland, 17.6; Denmark, 17.5; Norway, 16.8; Sweden, 17.6; Austria, 25.4; Hungary, 27; Switzerland, 17.6; Germany, 21.5; Prussia, 21.4; Holland, 17.1; Belgium, 18.8; France, 21.1; Italy, 22.1.

Zymotic diseases include smallpox, measles, scarlet fever, enteric fever, diphtheria, whooping cough, influenza, diarrheal disease (epidemic enteritis), hydrophobia and puerperal fever; 89,235 deaths were attributed to these diseases, or 2,811 per million of the population.

Alcoholism caused the deaths of 2,871, or 112 per million living among males and 70 among females.

Cancer or malignant disease caused the deaths of 26,325, or 829 per million of all ages and both sexes.

Tuberculous diseases, including phthisis, destroyed 60,659, or 10.4 per cent. of deaths from all causes, 1,911 per million of the total population.

Parasitic diseases caused 389 deaths, or 0.07 of deaths from all causes.

Infant Mortality.—One hundred and sixty-three infants under one year of age died in 1899 in every 1,000 infants in England and Wales, and 167 in London. There were 82,103 deaths in lunatic and idiot asylums, or 14.1 per cent. of the total deaths in England and Wales.

Such are some of the diseases which undermine the constitution of the body corporate; and, in our dependencies, malaria, cholera and plague must be added.

It is hoped that these figures will set men thinking. The art of citizen-making is far from advanced if this is the result of our training and equipment. Fitness in health, brain and moral force, which mean sound health, intelligence and will power are not obtained under such conditions, and the time is come for its realization and the attention of us all. The practical application of the stores of medical and scientific knowledge is the remedy which must be entrusted to a Medical Minister, with the full consent and approbation of the nation, and perhaps by his personal intercourse and communication a new era of health will be entered upon. He would have to contend, not merely with the forces of disease, but with those of apathy and ignorance.

Vital Statistics.

Those skilled in vital statistics claim that one-third of the deaths annually registered are dependent on causes which proper administration of sanitary measures could remove.

Fictitious Arguments Against the Appointment of a Minister.

There are objections that arise, more especially in that constitution of mind known as conservative, that dislikes any alteration of existing affairs, to the appointment. The world to them must stop still in its course. It is said that the appointment of another Minister would lesson the individual weight of those that exist. The Public Health Department is, in many countries a subordinate portion of another one, and no loss of prestige to its overworked head could ensue from the withdrawal of such specialized duties as those of the care of the public health. The onerous duties of local government, of agriculture, etc., afford ample scope and to spare to one man, however wise and capable. No loss of status would ensue, nor is it possible for one man, however brilliantly endowed, to undertake the superintendence and charge of the health of millions, and yet have time or strength for the performance of other exhaustive duties. I do not think the argument holds good, that prestige would be lost.

Again, it is said that the effective discharge of public health regulations must eventually devolve on local authorities. The truth of this I allow at once, but it does not weaken the plea for a Minister. In the future local government will grow, in sanitary and other matters, it is sincerely hoped. Over-centralization is justly to be condemned, and the central authority that would attempt to interpose and *enforce unduly* even the wisest of rules on the community would not be tolerated. But no greater spur or incentive to the proper sanitary progress of local authorities could be devised; nothing could be better calculated to promote the best interests of all departments than a trained chief with adequate powers. It is true that the fulfilment of our expectations would depend partly on the personality of the Minister, but in the long run our hopes would be realized.

In the recent debate on the appointment of a Minister of Commerce in the House of Commons at Westminster it was brought forward as opposing arguments that we have four times as many Ministers as other countries, that our Cabinet is three times as large as any other Cabinet, and that our number of paid Ministers was about five times as numerous as the paid Ministers of other people. I am unable to criticize the accuracy of all these statements, but I cannot accept them as proving generally the inadvisability of further appointments. Seriously speaking, that such a number of Ministers has been found requisite and necessary in the order of things is to my mind an argument in favor of the appointment I advocate. If the appointment of a Minister of Commerce is described as of *vital* importance, the functions of a Minister of Health, on whom life may be said to depend, are yet more truly of vital importance.

Again, I am asked if existing arrangements are really insufficient? To this I would answer by another question, "Are the infectious and preventable diseases, the filth diseases, the industrial diseases, the infant mortality, etc., diminishing universally and in proportion to our knowledge of the potentiality for decrease? Are investigations as to the causes and prevention of lunacy and cancer being duly promoted by state means? Do the annual reports clearly set forth to the country the need for further measures of personal inquiry and direct medical supervision?" In fact, are state arrangements commensurate with the proper share of the efforts which should be made to prevent "wastage" of life? The success of nations or individuals is a hollow one, if the penalty is exacted in disease of body and mind, with the poverty, misery and suffering entailed in it.

Then the objection is raised that such an official would entail increased taxation; and perhaps, on the surface, the matter of cost may appear of some, even of great, antagonistic weight.

The yearly expenditure of English departments is certainly large, judging from the published figures. In 1902-03, the administrative expenses of the Local Government Board were estimated at £220,323, of the Home Office £152,356, of the General Register Office £54,524, of the Privy Council Office at £23,390, and a grant of £15,300 was made to the Meteorological Office; or nearly half a million yearly; and this is only a portion of the Civil Service Estimates.

Such disbursement has grown naturally in the evolution of state affairs, and has long ago been recognized as wise. It cannot be denied, even closely studying economy by the redistribution of the duties of the departments, with due regard to their best interests, that the creation of such an official and staff would entail considerable further expenditure of public money. A Minister of Public Health would receive a salary of three to five thousand a year, and from a business point of view would deserve and earn it well, and the necessary and adequate expansion of his staff would undoubtedly call for many thousands more. It must be remembered, however, that such a Ministry would consist largely of already existing officers, who would be now attached to the Health Department. One cannot but be impressed with the annual payment of a grant of £15,300 to the Meteorological Office, and one feels that a country which can afford this can pay also for an improved health service.

The Imperial Vaccination League made the remarkable statement that in London, in the recent epidemic of smallpox, the cost of attempting to isolate the sufferers had been £500,000. Indeed, we may legitimately claim that this half-million of money might never have been expended with a Minister at the head of affairs with proper powers, and in any case it would have been far better utilized in the support of an enlarged Department of Preventive Medicine.

Many years ago Dr. Farr calculated that the average value for all ages of a life was £150. The sum of £150 is too low an estimate of the value of each person restored to working capacity from disablement or death from phthisis. In England deaths from phthisis amount to 60,000 per annum. Lower this mortality by one per cent. per annum only, as a minimum result of increased efficiency, and £90,000, or the cost of your department, is paid for by one small economic gain from the diminution of a single disease. But are not pounds, shillings and pence after all a fictitious estimate of an improved national or even individual standard of health.

To my medical *confrères* it is unnecessary to dilate further on the sum total of benefaction that might ensue from State (in addition to voluntary) measures directed systematically and ceaselessly against alcoholism, lunacy, syphilis, tuberculosis, infant mortality and other visitations, or by assisting the scientific research of cancer and other diseases from State as well as private resources.

Lastly, it has been said that nothing has been brought forward to prove that it is desirable to detach sanitary administration from other departments of local government.

It must not be concluded that because a separate central Office of Health is established, that local sanitary administration would therefore be disconnected from other local work. It is to be remarked that a Sanitary Authority has nevertheless a complete title and existence, such as are not to be found apparently in the central Sanitary Authority of the Empire; that, speaking in a relative sense only, urban and rural sanitary authorities possess more marked identity than the State Medical Department.

The Appointment of a British Minister of Education has been coincident with the handing over of local administration of education to the local governing bodies; at a time, therefore, when correlation was taking the place of previous separation. No jot of evidence can be brought forward from this undoubted advance in education to prove that there should not be such a Minister, and that the appointment was not entirely for the best.

It may be fairly be claimed that the real effect of the appointment of a Minister on local sanitary authorities would be to add weight to the recommendations of these bodies if in accordance with sanitary requirements, and would render them more generally effective; the Minister would initiate and promote their sanitary progress, if necessary; would lend assistance to those in need of help; would stimulate those who were apathetic or indifferent to the public duties which they had assumed and the legislative trusts they were responsible for; would remove such shackles as unduly bound them; and would be compelling to those who wilfully neglect their duty. The central authority would not needlessly interfere with local matters in any way; for in our system of local government the principle is assumed that what ought to be done for local interests should be done by local bodies, with certain limitations. But it is not to be assumed that local authority extends to the omission of advantages gained by science and civilization—which may mean an attack by default on the health and even life of the governed, for there are sins of omission as well as commission. Each local sanitary authority has for its legal existence to lessen to its utmost the incidence of disease within its district, and, *where preventable disease is not prevented,* it would be the bounden duty of the central authority to intervene. Happily, there is always a beacon in view to guide the Government bark between the rocks of interference and neglect, and it is "the medical requirements of the public health."

The Minister would at once be the friend of all, the teacher of sanitary law, and director of the public health administration.

Here I would submit to you a recognition of the enormous value of the work done by voluntary efforts. In England it has been said, with a large amount of justice, that every great sanitary improvement has been initiated by voluntary or local action. Such a truth is very suggestive and its significance worthy of consideration. If it were not for these associations and individuals in my country, movements for the better housing of the working classes, the prevention of tuberculosis, smallpox, alcoholism, or cancer research might not as yet have been initiated.

It is now my duty to place briefly before you the existing basis in England on which a Ministry of Health would be properly laid and an outline of its functions. It would undoubtedly be the Medical Department of the Local Government Board, which consists of a medical officer, two assistants and some thirteen medical inspectors, of whose talents and labors no praise is too high.

THE LOCAL GOVERNMENT BOARD AND ITS ORIGIN.

The Board was established in 1871 to concentrate in one department of the Government the supervision of the laws relating to public health and the relief or the poor and local government. It consists of a President appointed by the Crown, of the Lord President of the Privy Council, the principal Secretaries of State, the Lord Privy Seal, and the Chancellor of the Exchequer. The latter are all *ex-officio*. The President sits in Parliament and is a member of the Cabinet as a rule, and receives a salary of £2,000 a year. The work is carried out in reality by the President and permanent staff of Secretary and four assistant secretaries, and inspectors, general, engineering and medical. A brief history of the origin of the Board is interesting in the light of its present development.

The Royal Sanitary Commission (1869 to 1871) recommended that the administration of the public health and the relief of the poor should be in charge of a single Minister, and had expressed the opinion that if such a Ministry were established, *separate secretaries—one for public health and one for the relief of the poor*—would probably be found necessary. This suggestion, however, was *not* carried out, but all administration was concentrated in the hands of a single secretariate. The new office started then naturally as a continuance of the former Poor Law Office, which had never controlled sanitary matters, but had only medical responsibility for the sick poor. The Royal Commissioners had expressed or implied that the new authority should be a "motive power" of no mean degree for promoting sanitary progress, besides the continuance and extension of merely sanctioning powers for different purposes of local sanitary government. It was to have a legislative as well as an administrative side. The legislative policy implied was in the direction of amendment of existing enactments; the administrative policy was in the first place to organize a thoroughly efficient system of supervision and observation in every district of jurisdicton of the country, by whch information and guidance in action or pressure might be applied.

It is impossible to avoid, at this point, the comparison of such a stimulating plan of action with the policy of the Board in 1888, when it desired to transfer to County Councils *all the powers* which it now has under the Public Health Act of enforcing on defaulting district authorities the performance of their sanitary duties. Truly a premature effort at decentralization!

To resume: The Board is invested (1) with the powers and duties of the Poor Law Board; (2) with all the powers and duties of the Privy Council relating to vaccination and the prevention of disease; (3) all the powers and duties of the Home Office in relation to public health, drainage and sanitary measures, baths and wash-houses, public and town improvements, artisans' and laborers' dwellings, local government, local returns and local taxation. The growth of its duties is steady and continuous. It has legislative powers of making rules, regulations and orders, and of confirming by-laws. Its administrative control varies considerably; over poor law matters it is complete; over municipalities the Board has no direct control. Over sanitary authorities that Board has considerable powers; it can force them to carry out sanitary measures to its satisfaction. All the powers conferred on the Privy Council by the Diseases Prevention Act, 1855; all powers conferred under the Sanitary Acts were transferred to the Board in 1871, the Pollution of Rivers in 1876, Adulteration of Food, 1875, 1879, 1887. It has powers in relation to vaccination, 1871, and miscellaneous duties. Every local authority is entitled to its advice whenever it is in any difficulty, even though such difficulty be of its own creation. It has the power of demanding reports and returns of all kinds from local sources. It lays its annual report in a blue-book before Parliament. In 1888, or seventeen years after its establishment the Board received the central control of the County Councils, an omen of its future expansion. Indeed, the diversity of functions of the Board has and will increase more and more as the tide sets in towards local self-government. On the other hand, that of the Home Office is diminishing. This in itself suggests that the Board should likewise divest itself, already overburdened, of the weighty cares of the public health. Freed from this encumbrance, the Board would develop soundly and healthily to maturity.

The Ministry of Health would be based, then, on the expanded medical department of the Board, but added or in close co-operation would be the functions of the General Register Office, which collects the returns of births, deaths and marriages. The figures published by the Registrar-General are an abstract of sanitary results which affect the thinking members of the people. From these returns mortalities have been extracted and causes of mortalities specially traced. The dark regions of disease have been mapped out, the influence of occupation and seasons detected, the relation of birth to death deduced. The records of this department and the Board, it may here be said, clearly indicate what improvement of the national health can be effected by official direction of intelligence and diffusion of knowledge.

Clearly these united and extended departments of the Ministry would deal with the records of disease, vaccination and re-vaccination, outbreaks and incidence of epidemic and infectious disease, the regulation of injurious trades and industries in relation to health, the prevention of filth and communicable diseases, and the infant mortality. The adequate provision of Fever Hospitals, and Sanatoria and Homes for Consumptives, and Colonies for Epileptics, etc., would be advised upon. Incorporated in the Ministry, they would watch over these diseases, would make known what is and what is not being done in districts in the annual report to Parliament in a thorough and systematic way; would make a regular statement of the progress of disease and its prevention in England, yearly collected from the reports of the medical officers of health; would arrange necessary conferences with or visits to medical officers of Health and sanitary authorities. In short, by direct medical inspection would carry out systematic and ceaseless supervision. In like manner the working of the Act that deals with the adulteration of food and drugs, and with (public) analysis of water, etc., diseases affecting animals and communicable to man; chemical and pathological research and experiment as to the causation and prevention of disease of mind and body, originating in England or the colonies and tropical possessions, both in man and animals; bacteriological investigations of human and animal morbid conditions of water, sewage and food, would be promoted and assisted, and even in part undertaken methodically in laboratories by the Ministry of Health. The establishment if Public Health Laboratories in suitable centres of population would be encouraged. The Education Bill will result in rendering more thorough and complete our national system of instruction in Hygiene and Cleanliness and the principles of healthy living. All questions as to the instruction in the principles and practice of personal, domestic and general hygiene, of physical culture and healthy conditions of school life and surroundings would be referred to the Ministry for advice. Of supreme importance would be the inculcation on the impressionable mind of youth of the commonsense principles which guide the health of mind and body; of the part played by impurities of food, air, water, person, soil and surroundings in spreading disease; in the rearing and feeding of children, in the study of nature, of attention to physical development *pari passu* with mental and moral. Gymnasia, swimming-baths, and "open-air" spaces or parks could be promoted.

To the Ministry the returns of the Coroners' courts would be entrusted (and their value is very great), and to it all meteorological observations would be sent. The supervision of the health of workers in factories might be expected to be passed over from the Home Office. In the past the Home Office, one of the oldest of our Departments, has parted with many duties gradually, finding specialized treatment and knowledge necessary. The effects on body, minds and morals of discipline, diet, labor regime and hygiene, and the relations of age and sex to labor, could be best appreciated by the Minister of Health, to whom would be referred in this case questions relating to the sanitary arrangements of prisons, police and public works and the care of lunatics.

The veterinary department of the Privy Council would well be associated with the Ministry. The health of man and animals is so closely connected that one can hardly be considered without the other, while many questions of their relations remain to be investigated both in England and in the Colonies and India, and the practical application of the results of such investigations requires to be made known. Diseases of the vegetable kingdom are now dealt with by the Ministry of Agriculture. The combination of the work of these offices would enormously conduce to efficiency, and their official head, the Minister of Public Health, would be the adequate and dignified representative of these vital interests of the people of this country and its tropical possessions. He, without having necessarily special talents for research, as Koch, or Pasteur, or Lister, would regulate the inevitable conflict between the forces of nature and the tendencies of crowded communities, where the struggle for existence grows fiercer and fiercer. He would advocate and encourage the simple principles of health, and co-ordinate by direct, even personal, representation both scientific and common-sense measures applied to workaday life. He would be a wise authority and judge, rather than a disciplinarian or an officer of justice. He would be the chosen mouthpiece of the nation's needs. So created, he would excite the minimum of prejudice and would be acceptable to the majority, who desire to govern themselves yet be guided therein. The secret of the Ministerial power would be education. If we look at the condition of houses and towns, of the social life of the people, and then turn to the tables of mortality, we must see that the obvious rules of self-preservation are neglected. This would be his task to remedy. Only inasmuch as education diminishes the initiative of the individual and the liberty of the subject would such an appointment sap the virility or will power of a nation. Indeed, the example of a Minister would stimulate most individuals, and would tend to raise the standard of intelligence and ethics of a nation and be one of the highest of educational agencies. The level of intelligence is yet far distant when such an instrument as this can be dispensed with.

The Ministry might desire the advice of a Consulting Committee of eminent members of the medical and legal professions. Medical officers of schools, or factories, of poor law authorities, of prisons, of the Navy and Army, and of the veterinary profession; physicians such as the Presidents of the Royal Colleges; statisticians, including the Registrar-Generals of Scotland and Ireland; a neurologist or alienist, a pathologist, a sanitary engineer and architect, and a barrister-at-law, would at once suggest themselves as having had the expert training suitable for such a body, whether members of the Ministry or not.

There is one point which would arise in the appointment of a Minister of Public Health which is of peculiar interest. Should he be liable to change with every Government, as other Ministers of the Crown hold office? Would the best interests of public health be served thereby? For such a dislocation of office I can think of little to be said in its favor. This specialized work would be united in one mind trained to serve the public health. Though himself a learner and director of learning, he would be the adviser of the Government. He would administer his office irrespective of party, while advocating and applying the principles and practice of medicine. The purposes and objects of such an office would entitle the temporary possessor to a seat in the Cabinet and one of the Legislative Assemblies. To medicine would belong the essential share in determining the course of action of the Minister in the supervision of general and local sanitary government, and medical considerations are largely those which would underlie and guide his policy. The Minister might be summoned by the Sovereign to such meetings of the Cabinet as had to do with his department and be definitely cut off from the collective responsibility of that body.

The growing demand for a responsible head would in such manner be met, for the duties of the public health would be placed on the shoulders of the Minister, *subordinate to no office,* and of equal status with his colleagues, laying his views with proper weight before the Cabinet, the Parliament and the country.

We may rest assured that the common sense which guides the world will never allow these vital health interests to be subordinated to or separated from the great national interests over which Government watch and safeguard, and one day it will insist on the general appointment of such an officer, whose functions will be to vigilantly watch and promote the exercise of proper precautions for safeguarding the public health, and to "insure" the sound and healthy progress of the nation, as against a morbid and diseased growth.

Such suggestions as I have made are pieced together with a due sense of limitations and of imperfections.

If I can arrest the attention of this meeting on the central idea of the necessity for Ministers of Public Health, presiding over a national sanitary organization, I am well content. I regret that I have up to the present not received detailed information of the present sanitary constitutions of other countries, with the exception of Italy, the United States of America, and Canada. The Canadian Medical Association has, however, passed the following resolution, forwarded to me by the Director-General of Public Health in Canada (at present an officer in the Department of *Agriculture*):

"*Whereas*, Public Health, with all that is comprised in the term sanitary science, has acquired great prominence in all civilized countries, and

"*Whereas*, Enormously practical results have been secured to the community at large by the creation of health departments under governmental supervision and control, and

"*Whereas*, Greater authority and usefulness are given to health regulation suggestions when they emanate from an acknowledged Government Department;

"*Therefore*, Be it resolved, That in the opinion of the Canadian Medical Association, now in session, the time is opportune for the Dominion Government to earnestly consider the expediency of creating a separate department of public health, under one of the existing ministers, so that regulations, suggestions and correspondence on such health matters as fall within the jurisdiction of the Federal Government may be issued with the authority of a Department of Public Health. That copies of this resolution be sent by the General Secretary to the Governor-General-in-Council, and to the Honorable the Minister of Agriculture."

Perhaps you will also allow me to give you the words of Professor William H. Welch, of Johns Hopkins University: "I am in thorough sympathy with the movement to secure Ministers of Public Health."

In conclusion I read these words written to me by the "Father" of English sanitary institutions, Sir John Simon, at once our greatest sanitary legal authority, who is now in his eighty-seventh year:

"One word I am tempted to add to emphasize what I hope is intimated in the volume (viz., "English Sanitary Institutions," Ch. xv.) as to my very strong feeling on what should be the constitution of the central medical department. It is, in my opinion, quite essential that such a department should not be subordinate to any general secretariat, and that its report should be *direct* to the Minister, and should (when so intended by him) be laid as his reports before Parliament."

I am myself convinced that such an appointment as I advocate possesses untold potentialities for the Health, and therefore for the Common Wealth, of Nations.

A meeting of this kind is especially favorable to obtaining the views of distinguished workers in other countries, and these in all earnestness I seek. It remains to me to thank you, Mr. President, ladies and gentlemen, for your courteous consideration and to move the following resolution with the hope that if it receives your sanction it may induce inquiries by Governments and subsequent action.

Clinical Department.

Note on a Case of Thyroid Tumor. W. GREENWOOD SUTCLIFFE, F.R.C.S. (Eng.), Consulting Surgeon of the Thanet Union Infirmary; and A. F. M. POWELL, M.B., C.M. (Edin.), Medical Officer to the Infirmary, in *The Lancet.*

The patient aged 42 years, was stone deaf, so that a history of the duration of the tumor was not obtainable; she had been in the infirmary a few weeks only, and the tumor was giving rise to distinct pressure symptoms, there being frequent attacks of dyspnea. Removal of the tumor was decided on and carried out on March 23, Dr. Powell administering the anesthetic, chloroform, and Dr. Frank Nichol of Margate, assisting Mr. Sutcliffe. The usual transverse incision was made over the most prominent part of the swelling and as more room would obviously be required a longitudinal incision was added in the line of the sterno-mastoid. The bulk of the cyst at once collapsed on incision and its connections could then be made out; it extended well under the trapezius behind, under the maxilla above, and some considerable distance into the thorax below. It was densely adherent and its separation involved a difficult and tedious dissection. Starting from behind, the bulk of the collapsed cyst was dissected up and it was found that the carotid sheath was incorporated in its posterior wall. The jugular vein was tied low down and again high up, a large piece being removed bodily with the tumor; the carotid and the vagus were easily peeled off and the upper pole of the cyst tied with a strong silk ligature. The intrathoracic portion was cut off and left *in situ* as its removal would have been attended with risk. A gauze drain was passed into the cavity and the wound sewn up with provision for free drainage in all its area. After the first day, on which the temperature rose to 103 deg. F., the patient did well, the only trouble in healing being the sloughing of some of the skin that had been stretched by the tumor. The cyst had evidently at one time been an ordinary multilocular thyroid tumor, but the partition between the walls had broken down, making one large irregular cavity. It was in part very closely adherent to the skin which was reddened and glazed over it, entirely negativing any idea of subcutaneous anesthesia, but when collapsed was on the whole easily separable; the hardest part to remove was the rounded semi-solid upper angle of the jaw adherent internally to the pharyngeal muscles. At one stage of the operation there was some startling hemorrhage from a large tributary vein low down in the neck, the arrest of which was momentarily delayed owing to temporary difficulties with respiration due no doubt to traction on the vagus, and the later stages of the operation were accompanied by a curious whistling sound from the thorax as if the pleura had been wounded, but it was probably only due to air flowing in and out of the thoracic portion of the collapsed cyst with the respiratory movements. The patient is now perfectly well and the scar is, as usual in thyroid cases, hardly visible.

Primary Typhlitis Simulating Appendiceal Abscess and Ileocecal Tuberculosis.

Ernst Zimmerman, M.D. Attending Gynecologist to Blessing Hospital, Quincy, Ill., in *Jour. A.M.A.*

The following case is deemed worthy of a detailed report on account of the paucity of the literature regarding primary typhlitis and the consequent difficulties in diagnosis which it presents, and on account of the unusual complications in the present case. None of the works on appendicitis or on disease of the intestines or the general works on surgery give any adequate account of this trouble. Hemmeter gives only two sources of ileocecal tumor not due to primary appendicitis, *i.e.*, cecal tuberculosis and carcinoma of the cecum. Eisendrath, in his recent work on "Surgical Diagnosis," adds a third, ileocecal actinomycosis. Dr. Clarence A. McWilliams, in a paper read before the New York Surgical Society, February 27, 1907, under the title "Primary Typhlitis Without Appendicitis," gives the history of a case very similar to mine in which he assumed that the cecal tumor was either tubercular or carcinomatous, and resected it. Pathologic examination showed simple inflammation and infiltration affecting all the intestinal layers adjacent to the cecum, the inflammation proceeding from within the cecum. My case is as follows:

History.—Mrs. N. S., aged 30, gave no history of previous illness except the usual diseases of childhood. She menstruated first at the age of 13 years, and then regularly up to date excepting when pregnant, the flow lasting usually four or five days. She had had three children, her labors being normal;

no miscarriages. Youngest child 4 months old. She menstruated again in May, 1907, for the first time since the birth of last child, the flow lasting about thirty-six hours and being unaccompanied with pain. In January, 1907, she woke one night with severe pain in the right iliac region. This grew better in an hour or so, but her right side had since been more or less tender. I first saw the patient May 19, 1907, and learned that aside from tenderness in her right side she had been perfectly well up to the evening of May 16, when she began vomiting and developed a severe pain in the epigastrium, some fever and diarrhea. The condition continued except that the pain gradually localized itself in the right iliac fossa.

Examination.—This showed heart, lungs and pelvic organs to be normal. The area over the region of the appendix was very sensitive, but nothing further could be found out that day on account of rigid abdominal muscles. Her temperature at this time was 102.5 F. and pulse 100. She was removed to Blessing Hospital the following day and all food withheld. Her temperature this day was 99.8 F. and pulse 84, but her right side was just as sensitive and her bowel movements as frequent. May 21 a distinct mass could be made out by both vaginal and abdominal examination in the right iliac fossa, the temperature then being at noon 100.2 F. and at 8 p.m. 99.8 F. May 22 temperature was 100.2., pulse 80 at 8 p.m., and the tumor was somewhat larger. May 23 temperature was 101 F. at 4 p.m., and 101.8 at 8 p.m., and the mass was more sensitive, and suspecting appendiceal abscess, she was ordered prepared for operation the next morning. May 24, before the operation, her temperature was 101 F., pulse 98, and the mass was as large as a large sized orange.

Operation.—Ether anesthesia was used and the incision was made over the centre of the mass which corresponded to the outer border of the right rectus muscles, a little lower down than midway between the anterior spine of the ilium and the umbilicus. On retracting the edges of the incision the greater omentum came into view covering the cecum and ileum, and the ileum, omentum and cecum were firmly united by adhesions. The ascending colon was also firmly adherent to the parietal peritoneum. The appendix was situated to the outer side of, and adherent to, the cecum, and was congested, thickened, and distended. The appendix was ligated, removed and the stump buried by a purse-string suture. The walls of the cecum and the lower six or eight inches of the ileum were inflamed and very much thickened, the walls of the cecum averaging about three-fourths of an inch in thickness. The ileum in that region was matted down by adhesions, but no attempt was made at their separation. The extensive adhesions, the absence of pus, the very great thickening of the cecum and ileum made it probable that the tumor was an ileocecal tuberculosis.

Postoperative History.—After the operation the condition was good and she made an uneventful recovery as far as the appendectomy was concerned. The temperature never rose above 99.5 F. after the operation, and in a course of three days was normal. The stitches were removed on the ninth day, the wound having healed by first intention. Her bowels moved freely on May 28, and then once a day until June 7. June 8 she was removed to her home, and on the way there in the ambulance developed colic and vomiting. On the evening of June 8 I found her with the abdomen somewhat distended and bowels undergoing very active and visible peristaltic movements. She complained of the attacks of colic, but no pain in abdomen during the intervals of intestinal peristalsis. She vomited at that time a small quantity of mucus stained with bile. She had no bowel movement June 7 and none June 8, and was passing no flatus. I withheld all food and drink and gave hypodermically morphine sulphate, 1/4 gr. and ordered enemata of soap-suds and glycerine. A diagnosis of intestinal occlusion was made at this time, but I was under the impresion that it was due to the thickened walls of the ileum and cecum. I advised a return to the hospital next day, but could not get the patient's consent. On June 9, 10 and 11 the patient's condition remained practically the same, *i.e.*, she vomited mucus and bile at frequent intervals, there was active peristalsis of the intestines without abdominal tenderness or any passage of flatus or feces. She was somewhat weaker, however, her pulse became more rapid and her temperature was subnormal. During the night of June 11 the vomitus became fecal in character and the patient consented to be removed to the hospital on the morning of June 12, and was operated on during the afternoon of that day.

Second Operation.—An incision was made somewhat above and to the outer side of the scar of the first and a few adhesions easily separated, were found under this between the parietal and visceral peritoneum. The greatly thickened condition of the walls of the ileum and cecum had disappeared and they seemed about normal. The ileum at its junction with the cecum was simply matted down by adhesions, and these were separated as well as possible. Since they were so dense and numerous that it was impossible to cover in the raw surfaces, it was thought advisable to join the ileum, where it was free from adhesions, to the lower part of the ascending colon by a lateral anastomosis. The ascending colon being bound down tightly, it could not be brought up into the abdominal wound and the Murphy button was preferable to any other method of making an intestinal anastomosis.

Subsequent History.—The patient was somewhat collapsed when removed from the operating room, but rallied promptly and her condition was good next morning. She had a thin, yellow bowel movement and expelled some flatus fifteen hours after the operation, but had no further vomiting. From this time until she was discharged from the hospital, three weeks later, she made an uneventful recovery, having no fever, no abdominal pain and regular bowel movements. At the present writing (July 20) she is at home doing her own housework, and has two bowel movements daily, but no pain or discomfort anywhere. The button has not yet been passed, but a recent skiagraph shows that it is a harmless tenant of the cecum.

I was assisted by Dr. E. B. Montgomery of this city in both of these operations and in the preparation of this report.

Polydactylism. William J. Morrish, M.D., (Lond.), L.R.C.P. (Lond.), M.R.C.S. (Eng.), in *The Lancet.*

Referring to Dr. W. H. W. Attlee's case of supernumerary digits, published in The Lancet of July 20th, p. 163, I may perhaps record the following:

On Nov. 29th, 1906, I attended a woman in her seventh confinement, the child proving to be a girl. She had previously had two boys and four girls. Both boys were normal, but the girls presented the following peculiarities as regards their hands and feet. Each child had six digits on both hands, the additional digit being situated on the ulnar side, and in the case of the three eldest having bony union with the rest of the hand; while in the two youngest the additional finger was attached by a pedicle of skin and vessels as in Dr. Attlee's case. The mother had had the sixth fingers removed from the first and second girls, but on account of her delicacy the hands of the third had not been operated on and I was thus able to see the extra members. On the right hand the finger possessed a metacarpal bone which was in relation with the carpus, but on the left side the digit was very rudimentary, though having bony connection with the ulnar side of the little finger. The pedunculated sixth fingers of the fourth and fifth girls were removed after ligaturing their pedicles. The middle and ring fingers of the eldest girl's left hand were also webbed throughout their entire length. Their feet showed even greater variation. The eldest girl had six toes on her left but only five on her right foot, with webbing of the great, second, and third toes of both feet. The second had five toes, with slight webbing of the second and third on each foot. The third had six, with the second and third completely webbed on each foot. The fourth girl presented the greatest abnormality of any, having an apparently spatulate condition of each great toe, which on closed examination gave the appearance of a fusion of two separate toes, while in addition to this on the right foot there were two little toes apparently in relation with the fifth metatarsal, the remaining digits of the left foot being normal. The only abnormality of the feet of the newly-born fifth girl was a very slight degree of webbing of the second and third toes of each side. The father of these children had six digits on each hand and foot, with bilateral webbing of the second and third toes. He was an only child and his father and mother were quite normal as regards their hands and feet. He was not related to his wife prior to their marriage.

This remarkable case is another example of the well-established fact of the hereditary tendency of this sort of deformity, and it is noticeable that the male children should have escaped.

THE admixture of adrenalin to cocain solution counteracts much of the depressant effect of the anesthetic and enhances the local vaso-constriction. When the mixture is used on the surface of a mucous membrane, however, as in excising an ulcer in the mouth, one must be prepared for a marked reactionary bleeding.—*American Journal of Surgery.*

Therapeutics.

Treatment of Ulcer of the Stomach. When we take into consideration the fact that one-half of all post-mortem examinations show that the stomach has had an ulcer at one time or another, we must conclude that ulcer of the stomach is quite a common affection. Gastric ulcer is a disease frequently found, and at times an extremely fatal one, therefore the importance of treatment will be appreciated.

In the severer cases the physician is usually called when there is hematemesis. When treating a case of profuse hemorrhage from the stomach the physician must be calm and use great caution. It is natural that frightened friends and relatives insist that something be done and done quickly. It is necessary to stop the vomiting and keep the patient as quiet as possible, for every movement of the body increases the loss of blood. To accomplish this, a narcotic must be given as soon as possible. Codeine phosphate hypodermically acts better and is more rational than other narcotics in these cases. One-half grain of codeine phosphate can be given at once and repeated half hour until a narcotic effect has been produced. It was once thought that morphine not only stopped in such cases, but that it decreased the excessive secretion of the hydrochloric acid in the gastric juice. Riegel has proved that morphine does not decrease the secretion of hydrochloric acid, as has been supposed. It may retard the secretion of hydrochloric acid for a short time, but very soon the gastric glands lose their inhibitive power and the secretion of hydrochloric acid is greater than ever. This explains the reason why such patients have severer pains soon after taking morphine hypodermically. Suppositories of extract of opium combined with extract of belladonna are advantageous at times. Riegel, experimenting upon dogs through a Pawlow fistula, found that atropine reduced the quantity and quality of the acid in the gastric juice. For this purpose 1-100 grain of atropine given hypodermically is valuable. As a hemostatic the hypodermic ergot preparation must not be forgotten. Adrenalin has been effectual in some cases; 20 to 30 drops of a 0.1 per cent. solution of adrenalin chloride has been given by mouth with good effect. Gelatin has been used during late years to stop hemorrhage. It does not, as was at first supposed, increase the fibrin in the blood. It has been found that gelatin assists in the forming of a thrombus when brought in contact with a bleeding vessel. Clemm recommends a 50 per cent. acidified glucose solution into which as much gelatin has been dissolved as is possible. The whole is allowed to become ice cold. Small quantities are given frequently by mouth. The acid is grateful to the patient, for it allays the great thirst, while the gelatin assists in closing the bleeding vessels. Ewald washes out the stomach with ice cold water. He gives a small quantity of morphine hypodermically and cocanizes the pharynx before passing the stomach tube. It is astonishing how large a quantity of blood comes away with the ice water. Ewald says operative measures should never be resorted to until ice water lavage has been tried and failed.

The important point in the treatment of gastric ulcer is to keep the patient in bed as quiet as possible. When the hemorrhage has once stopped no food or drink must be allowed. If we begin at once to fill the stomach, the bleeding surface will be stretched, dislodging the clot, and start the hemorrhage again. When the stomach is empty there is little danger of a repeated attack of hemorrhage. For this reason all food and drink by mouth must be withheld. The rule is absolute quiet in bed and rest of the stomach with an ice bag on the epigastrium. In many cases of gastric ulcer with hemorrhage the blood is not vomited, but is passed into the duodenum, which gives rise to melena. We must always watch carefully for dark stools in all cases of suspected gastric ulcer, so that the proper treatment may be carried out.

Orthoform is said to relieve the pain in gastric ulcer by its anesthetic effect. For this reason it has been used as a diagnostic remedy, for if the pain be relieved by orthoform a positive diagnosis can be made. Orthoform will not anesthetize nerve endings when they are protected by skin or mucous membrane; it is certain that if it relieves pain in the stomach it can do so only by coming in contact with a surface from which the mucous membrane has been removed. (Murdoch.) Anæsthesin can be used in the same way. These remedies are used simply to stop the pain and do not heal the ulcer. To heal it is necessary to administer a remedy that will stimulate the granulating surface to cicatrize. In other words, patients must go through a regular course of treatment, a treatment that we know from experience will relieve and heal a given case.

The first method of value is that of Ziemssen and Leube. It consists of placing the patient in bed and giving the stomach rest. No food or drink is to be taken by mouth for the first three or four days. For the next three or four days and through the second week a liquid diet is given, such as milk with lime water, bouillon, beef tea, etc. If hematemesis be present, then the application of hot poultices is to be deferred until the second week. In the third week soft foods, such as eggs and fish, are added, and in the fourth week meats are given. The entire course of treatment lasts from four to five weeks. If it is desired to give the stomach prolonged rest, nutrient enemata can be resorted to for a longer period of time. Few cases fail to respond to this treatment. Rectal alimentation is unnecessary if the patient is well nourished. Care must be exercised when giving rectal feeding, as many times the moving of the patient and the disturbances produced by substances introduced into the rectum may aggravate the condition by increasing intestinal putrefaction. Kussmaul and Fleiner recommend the administration of the bismuth preparations. The subcarbonate is less apt to constipate. One hundred and eighty grains of bismuth subnitrate suspended in warm water and introduced into the empty stomach in the morning through a stomach tube is left to settle. In a few moments the upper clear water may be siphoned off. This should be done every day until the patient begins to improve, then every second and third day. The beneficial effects are soon noticed by decrease of pain, less nausea and vomiting. Fleiner believes that the bismuth covers and adheres to the ulcer, and in this way acts as a protection by preventing further injury from the acidity of the gastric juice and irritating food.

Cohnheim has attained excellent results in the treatment of ulcer of the stomach with olive oil. Walko finds olive oil and bismuth subnitrate valuable. The unirritating nutritive value ot the olive oil with its slight susceptibility to decomposition in the stomach and its retarding influence on the hydrochloric acid secretion make it valuable. Olive oil relieves constipation and acts as an anodyne in many cases of gastric ulcer. The old standard nitrate of silver treatment still stands as one that can hardly be replaced in some cases. One-quarter grain of nitrate of silver in a tablespoonful of distilled water to be taken three or four times daily. The dose can gradually be increased to half a grain in a few days. To stimulate cicatrization, when nitrate of silver does not act well, I have prescribed with beneficial results five drops of tincture of iodine three times a day in a wine glass of water. Many times the hyperacidity must have attention. To neutralize the excessive acidity in gastric ulcer there is nothing better than equal parts of magnesia usta and creta preparata. The magnesia acts well in these cases, as it assists in relieving the constipated condition. By a careful diet with the above medications there is no doubt that most of the cases will yield to treatment.

Cruveilhier, of Paris, in 1838 advocated an exclusive milk diet in gastric ulcer, to be given in small quantities and frequently. This method of feeding has never been bettered. Milk, with a little care, can now be so modified as to meet all idiosyncrasies. If necessary it can be peptonized. We are now firmer in the belief of a milk diet for gastric ulcer than ever before. Milk can be made an adjuvant to every treatment of gastric ulcer. The main reason for milk disagreeing is the solid coagulation of the casein in the stomach. Of late I have been using von Dungern's process of forming these curds before the milk reaches the stomach. To accomplish this, pegnin is added to luke-warm milk and the whole well shaken for a minute. In a few minutes the milk coagulates. By thoroughly shaking the coagulated milk the clots disappear and the milk is again liquefied. In this way the casein is finely divided, and therefore easily digested. Pegnin is easily added to milk, and not only makes cow's milk easily digestible, but gives it a flavor that pleases most patients.

Futterer has experimentally found that when the hemoglobin of the blood is destroyed gastric ulcer is apt to occur. The frequency of gastric ulcer in combination with chlorosis and the different forms of secondary anemia or hemoglobinemia are examples. Under these circumstances the percentage of hemoglobin must be ascertained and all measures used to bring the percentage up to normal as soon as possible. For this purpose I have been using fersan with good results. Most preparations of iron have a deleterious effect on the mucous membrane of the stomach. In gastric ulcer it is important to prescribe only such quantities of iron as can be easily absorbed without irritating the gastro-intestinal mucosa. It has been repeatedly proved that a large part of the iron taken into the body in the form of a medication is unabsorbed and acts as an irritant upon the mucous membrane of the stomach. In gastric ulcer the blood is lacking in hemoglobin, and the administration of iron, if it can be tolerated, is beneficial and many times curative. We must be careful in our selection of the preparation of iron, as all soluble preparations irritate both stomach and intestine, and those which are insoluble are inert. I have been looking forward to the time when we would find a preparation containing iron in organic combination which would be soluble in water and would not irritate the gastro-intestinal mucosa. Science has given us such a combination in fersan. It is the iron and phosphorus found in the erythrocyte of fresh ox blood. In a chemical sense it is an iron containing paranucleoproteid in combination. Fersan is free from peptones and albumoses, which often produce digestive disturbances and diarrhœa, and it contains but slight traces of extractive matters. The iron is present in complete organic combination. It contains 90 per cent. of non-coagulable albuminous substance. It is an odorless, tasteless acid iron albuminate, and calls for no digestive activity on the part of the stomach. It is freely soluble in water and is not acted upon by the acid gastric juice, but passes through the stomach unchanged. The alkalinity of the duodenum changes it to an alkaline albuminate, and as such it is absorbed by the intestine. I give it in 15-grain doses and consider it valuable in many cases of gastric ulcer.

When I wish to rapidly increase the percentage of hemoglobin I use the Italian method of giving iron hypodermically. In these cases I give the green ammoniated citrate of iron in one-grain injections deep into the gluteal region once daily. It is surprising how quickly the hemoglobin will increase when patients are placed under this treatment. Twenty-one days is usually sufficient to accomplish the purpose.

In spite of the value of internal treatment there are complications when it is necessary to call for surgical intervention. Gastroenterostomy seems to be the ideal surgical treatment for gastric ulcer. It places the stomach at rest and in that way favors the formation of a firm clot in the bleeding vessel, and this aids the healing of all ulcers. Gastroenterologists are willing to refer their cases of ulcer of the stomach to the surgeon if the internal treatment fails them. But, fortunately, medical treatment does not fail as often as some surgeons would lead us to believe. Cases of repeated and dangerously profuse hemorrhage should always be operated upon. Perforation of gastric ulcer requires immediate surgical intervention. A saline transfusion may be necessary pending the arrival of the surgeon, but an operation should be performed as rapidly as possible. In transfusion we must be careful not to overdo it. The amount of saline solution should never exceed 400 c.c. We must not forget that a sudden rise of arterial pressure from the large quantity of solution may reopen an injured blood vessel and increase hemorrhage. The main danger is shock, and all measures must be resorted to in order to prevent this. Blake has never lost a case of gastric or duodenal perforation that has come to him within twenty-four hours after perforation. In nearly all of these cases he washed out quantities of gastric juice and duodenal contents which had been scattered throughout the entire abdominal cavity and closed the peritoneum without drainage. As the main danger, in the medical treatment of gastric ulcer, is perforation, and as we can expect such good results by surgical intervention if referred to our surgeon within twenty-four hours, it behooves us to watch carefully the progress of each case so that surgical intervention can be called where necessary.—*Charles D. Aaron, M.D., Detroit, Mich., in the Diet and Hygienic Gazette.*

One of the most important elements in the treatment after intestinal operations is the administration of opium or morphine in large doses for the purpose of "splinting" the peritoneum.

A bichloride of mercury dressing should never be applied on an area of skin on which tincture of iodine has been recently painted. An iodide of mercury is formed, which is highly irritating.

In operations for suture of a fractured patella it is very important to sew the torn lateral ligaments of the joint. These aid largely in the support of the joint.

That a bone appears normal by fluoroscopic examination does not gainsay the presence of a fracture. A fracture of the radius, for example, may occur without displacement of the fragments. An X-ray plate will demonstrate the line of fracture, when the fluoroscope fails to.

In persons of middle age presenting gastric symptoms, the diagnosis of cancer should not be excluded because the symptoms have had a sudden onset. Such an onset occurs in a fair proportion of cases.

A sudden desire for sharp, sour and spicy articles of food in a middle-aged or elderly person is often the first symptom of a beginning gastric carcinoma.

If a patient vomits coffee-ground material in which no lactic acid is present, one can almost always exclude carcinoma.

If pressure in the right hypogastrium gives rise to a referred pain in the shoulder region, the offending area is probably the gall-bladder and not the pylorus.—*American Journal of Surgery.*

Proceedings of Societies.

ONTARIO MEDICAL ASSOCIATION.

The Vice-Presidents of the Ontario Medical Association, with the Chairmen of the Committees on Papers and Business and on Arrangements, Drs. R. R. Wallace and A. B. Osborne met at the home of the President, Dr. Olmsted, in Hamilton, Dec. 15 last, to inaugurate the work for the year.

Dr. Olmsted reported a personal convass of several portions of the Province to stimulate an interest in the coming meeting, which will be held in Hamilton, May 26th, 27th and 28th next.

The Chairmen of the two local committees have active campaigns on the way, looking toward a successful year's work. If the Hamilton members are supported by the men in the Province with an earnestness in any degree approaching that with which they have thrown themselves into the work, the next meeting is already an assured success.

The Committee on Papers have secured the promise of Dr. Charles G. Stockton, of Buffalo, to deliver the address in Medicine, while Dr. Charles L. Scudder, of Boston, will deliver that in Surgery.

The Association decided at its last meeting to stimulate a wider and more sympathetic interest among the Practitioners of the Province in its work, and one of the steps to that end was to carry the meeting of 1908 away from Toronto, where it has been called for so many years. The movement seems a wise one, and its success depends solely upon the efforts of the individual members scattered everywhere in Ontario. One or two men in each county who will interest themselves sufficiently to occasionally call the attention of their fellows to the Hamilton meeting with its promise of a good time both intellectually and socially, can give us the best year, in point of numbers, yet. Five hundred active members would be less than 20 per cent. of the physicians of the Province and surely not too large a number to have in annual attendance, for the western half of the Province could send as many, and a successful meeting this year will insure a repetition in a different section.

Physician's Library.

Cosmetic Surgery: The correction of featural imperfections. By Charles C. Miller, M.D. Including the description of a variety of operations for improving the appearance of the face. 136 pages. 73 illustrations. Prepaid $1.50. Published by the Author, 70 State St., Chicago, Ill.

This is a neat little book of 134 pages and index. It explains clearly and concisely the numerous operations for correcting featural imperfections. Doubtless, there are a great many people who would wish to have their facial features when not just quite as nice as they would desire, corrected. But generally speaking, after a few decades, most of us are satisfied to leave nature alone in all its glory, perfect or imperfect. Some say nature is always perfect; and the turned-up nose or the hump-backed nose might wish for a Grecian line as exhibited in Byron. Quite true, most of us may be indifferent as regards facial features. There are a few other things in most people to commend them to others. There may be a time when surgery will be called into action in correcting bow-legs, knock-knees, pot bellies, long legs, short legs, meagre busts and slim beam ends, as well as lop ears, receding chins and *retroussé* nasal appendages. But unless deformed by disease or accident, we might as well be content with the beauty nature has provided for us.

Obstetrics for Nurses. By Joseph B. DeLee, M.D., Professor of Obstetrics in the Northwestern University Medical School, Chicago. *Second Revised Edition.* 12mo of 510 pages, fully illustrated. Philadelphia and London: W. B. Saunders Company, 1906. Cloth, $2.50 net. Canadian agents, J. A. Carveth & Co., Toronto, Ont.

This is a superior handbook for nurses. The previous edition was very kindly received. In this edition advantage has been taken of all criticisms and suggestions offered by hospital Superintendents and individual nurses. The book will prove acceptable to medical students, and even young practitioners will find in it considerable information worthy to be imparted to the parturie woman. The illustrations are plentiful, and like all Saunders' pr ductions are in the best taste and style. The text is well writte clear, concise, ample for the requirements of its expected patron

Atlas and Text-Book of Human Anatomy: Volume III, co pleting the work. By Prof. J. Sobotta, of Wurzburg. Edite with additions, by J. Playfair McMurrich, A. M., Ph. D., Pr fessor of Anatomy at the University of Toronto, Canad Quarto of 342 pages, containing 297 illustrations, mostly all i colors. Philadelphia and London: W. B. Saunders Company 1907. Cloth, $6.00 net; Half Morocco, $7.50 net. Canadia agents, J. A. Carveth & Co., Ltd., Toronto.

This is the third and last volume of this atlas. We have befo given appreciative notices to volumes I and II. It takes up th completion of the vascular system and enters into a compact ex position of the nervous system and the organs of special sense. W believe the entire work will commend itself, first, to surgeons, se ond, to general practitioners, and third, to medical students, wh will not fail to appreciate it as a work of art, which, i deed it is in every sense of the term. The pride in its pr duction should be equally shared by authors and publisher To be thoroughly appreciated, it must be seen and pos sessed. The illustrations are as numerous as they are magnificent the text as concise as it is sufficient.

The Principles and Practice of Modern Otology. By John F. Barnhill, M.D., Professor of Otology, Laryngology and Rhinology, Indiana University School of Medicine; and Ernest de W. Wales, B.S., M.D., Associate Professor of Otology, Laryngology and Rhinology, Indiana University School of Medicine. Octavo of 575 pages, with 305 original illustrations, many in colors. Philadelphia and London: W. B. Saunders Company, 1907. Cloth, $5.50 net; Half Morocco, $7.00 net. Canadian agents, J. A. Carveth & Co., Ltd., Toronto, Ont.

In this exhaustive work the authors have endeavored to carry out the following objects: (1) To modernize the subject of otology. (2) To correct certain traditional beliefs. (3) To advocate the earliest possible prophylaxis or treatment. (4) To emphasize the importance of a thorough examination and a definite diagnosis as a basis for rational treatment. (3) To thoroughly illustrate the text.

It may be stated at once that the authors have succeeded admirably in these particulars, but in so doing have produced a work which it seems to me is rather beyond the student and general practitioner of medicine, for whom, we are told, the book has been put forward. It will be questioned whether the general practitioner has any business to meddle with the more intricate operations involving the internal ear (labyrinth or mastoid process), even if he have the skill and other equipment necessary to carry out such work. Even if such be granted, however, it is not to be implied that such a criticism reflects in any unfavourable manner on the book's usefulness. On the contrary, as quoted at the beginning, the work is exhaustive, and which is perhaps the best compliment we can pay it. For our own part, however, we prefer a small work under one cover, with the other closely associated affections of nose, throat and ear; a work which does not go so extensively into anatomy and physiology, but rather lays stress on diagnosis and treatment; in brief, a little volume of essential elements [illegible] that which one would call a practitioner's [illegible].

THE PANCREAS: Its Surgery and Pathology. By A. W. Mayo Robson, D.Sc. (Leeds), F.R.C.S. (Eng.), of London, and P. J. Cammidge, M.D. (Lond.), D.P.H. (Camb.), of London. Octavo of 500 pages, fully illustrated. Philadelphia and London: W. B. Saunders Company, 1907. Cloth, $5.00 net; Half Morocco, $6.50 net. Canadian agents: J. A. Carveth & Company, Toronto.

Surgeons the world over, if called upon to name the man who is among the surgeons of Great Britain what he is to-day, would, we think, unite in giving a foremost place to Mayo Robson, original, bold and successful as an operator, acute and accurate as an observer, logical and fair as a teacher and scholarly as an author. He is one of whom all who speak the King's English may well be proud. In the preparation of the volume before us he has had the assistance of Dr. P. J. Cammidge, by whom it is probable much of the research and laboratory work has been carried on. Since the date to appear the pioneer experimental work upon the pancreas published in 1889 by [illegible] (whose death this month we are called upon to deplore) with this beautifully illustrated book of 500 pages to siderable information worthy to be imparted to the parturient woman. The illustrations are plentiful, and like all Saunders' productions are in the best taste and style. The text is well written, clear, concise, ample for the requirements of its expected patrons.

Atlas and Text-Book of Human Anatomy: Volume III, completing the work. By PROF. J. SOBOTTA, of Wurzburg. Edited with additions, by J. PLAYFAIR MCMURRICH, A. M., Ph. D., Professor of Anatomy at the University of Toronto, Canada. Quarto of 342 pages, containing 297 illustrations, mostly all in colors. Philadelphia and London: W. B. Saunders Company, 1907. Cloth, $6.00 net; Half Morocco, $7.50 net. Canadian agents, J. A. Carveth & Co., Ltd., Toronto.

This is the third and last volume of this atlas. We have before given appreciative notices to volumes I and II. It takes up the completion of the vascular system and enters into a compact exposition of the nervous system and the organs of special sense. We believe the entire work will commend itself, first, to surgeons, second, to general practitioners, and third, to medical students, who will not fail to appreciate it as a work of art, which, indeed it is in every sense of the term. The pride in its production should be equally shared by authors and publishers. To be thoroughly appreciated, it must be seen and possessed. The illustrations are as numerous as they are magnificent; the text as concise as it is sufficient.

The Principles and Practice of Modern Otology. By JOHN F. BARNHILL, M.D., Professor of Otology, Laryngology, and Rhinology, Indiana University School of Medicine; and ERNEST DE W. WALES, B.S., M.D., Associate Professor of Otology, Laryngology and Rhinology, Indiana University School of Medicine. Octavo of 575 pages, with 305 original illustrations, many in colors. Philadelphia and London: W. B. Saunders Company, 1907. Cloth, $5.50 net; Half Morocco, $7.00 net. Canadian agents, J. A. Carveth & Co., Ltd., Toronto, Ont.

In this exhaustive work the authors have endeavored to carry out the following objects: (1) To modernize the subject of otology. (2) To correct certain traditional beliefs. (3) To advocate the earliest possible prophylaxis or treatment. (4) To emphasize the importance of a thorough examination and a definite diagnosis as a basis for rational treatment. (5) To thoroughly illustrate the text.

It may be stated at once that the authors have succeeded admirably in these particulars, but in so doing have evolved a work which, it seems to us, is rather beyond the student and general practitioner of medicine, for whose use the work has been put forward. It may be questioned whether the general practitioner has any business to meddle with the more intricate operations involving the tympanic cavity; labyrinth or mastoid process, even if he have all the electrical and other equipment necessary to carry out aural practice. Even if such be granted, however, it is not to be assumed that such a criticism reflects in any unfavorable manner on the work in question. On the contrary, as stated at the beginning, the work is an exhaustive one, which is perhaps the best compliment we can pay it. For our own part, however, we prefer a work which deals under one cover, with the often closely associated ailments of nose, throat and ear; a work which does not go so exhaustively into anatomy and physiology, but rather lays stress on diagnosis and treatment—a handy little volume or manual wherein one can find what one wants at a moment's notice.

The Pancreas: Its Surgery and Pathology. By A. W. Mayo Robson, *D.Sc.* (Leeds), F. R. C. S. (Eng.), of London, and P. J. Cammidge, M. D. (Eng.) D. P. H. (Camb.), of London. Octavo volume of 546 pages, fully illustrated. Philadelphia and London. W. B. Saunders Company, 1907. Cloth, $5.00 net; Half Morocco, $6.50 net. Canadian agents, J. A. Carveth & Company, Toronto.

Surgeons the world over, if called upon to name the men who are making the surgery of Great Britain what it is to-day, would, we think, unite in giving a foremost place to Mayo Robson, original, skilled and successful as an operator, acute and accurate as an observer, logical and fair as a reasoner and scholarly as an author. He is one of whom all who speak the King's English may well be proud. In the preparation of the volume before us he has had the assistance of Dr. P. J. Cammidge, by whom it is probable much of the research and laboratory work has been carried on. One has only to compare the pioneer experimental work upon the pancreas published in 1886 by Leun, (whose death this month we are called upon to deplore) with this beautifully illustrated book of 500 pages, to appreciate how great, or rather how vast, has been the progress of surgical pathology and practical surgery in the last twenty years. A notable feature, and one of much convenience to the reader, is the addition to each chapter of a fairly full bibliography of the more important monographs dealing with its subject.

To estimate the true bearing and value of the entire work would carry us beyond the space now at our disposal, but it is fair to state that the reading of such a section as the one devoted to the differential diagnosis of cancer of the head of the pancreas and of chronic pancreatitis will suffice to convince any surgeon that the book is one for which the time was ripe and the need great. The Saunders Company is to be congratulated upon having added this latest number to their already long list of sumptuous medical publications. N. A. P.

International Clinics: Vol. IV. Seventeenth series. J. B. Lippincott Company, Philadelphia and Montreal.

Among the interesting articles in this volume we were particularly impressed by "Five Years' Experience with an Antityphoid Serum," by Prof. A. Chantemesse of Paris (wherein the author shows a result of 3 per cent. mortality, as against 17 per cent. mortality in the other Paris hospitals, during the same period of investigation, viz., for five years), and an article on "Thiosinamine in the treatment of Deafness," by M. Lermoyez, M.D., of Paris.

Dominion Medical Monthly

And Ontario Medical Journal

EDITORS:

GRAHAM CHAMBERS, B.A., M.B. WALTER McKEOWN, B.A., M.D.

ASSOCIATE EDITOR:

T. B. RICHARDSON, M.D.

MANAGING EDITOR:

GEORGE ELLIOTT, M.D.

Published on the 15th of each month. Address all Communications and make all Cheques, Post Office Orders and Postal Notes payable to the Publisher, GEORGE ELLIOTT, 203 Beverley St., Toronto, Canada

VOL. XXX. TORONTO, JANUARY, 1908. NO. 1.

COMMENT FROM MONTH TO MONTH.

Ptomain Poisoning seems to be on the increase. These cases have come to the front in recent years; and many serious illnesses and deaths have been directly traceable to infected and contaminated foods. So far as the illnesses themselves go, they can, generally speaking, be classified into two groups: (a) Those due to true infection; (b) those due to simple poisoning. The former act somewhat like ordinary cases of infectious diseases, often causing considerable difficulty in their diagnosis, as many simulate typhoid fever. The latter are more of a gastro-enteric variety, analogous to arsenical or mineral poisoning. In the latter variety there are vomiting, intense colicky pains, sometimes purging, fever, accelerated pulse, great depression, etc. Death may occur rapidly in these cases. The sources of these cases of ptomain poisoning are mostly from tainted or preserved canned or tinned meats, though some are quite directly traced to tinned vegetables and fruits. Boards of Health should concern themselves in bringing directly to the attention of the people the dangers to health in the consumption of these tinned or canned foods, especially pointing out wherein these dangers lie. To children especially they are exceedingly dangerous for consumption. The treatment in all classes is eliminative and supportive. The gastro-enteric class is probably best treated in children, especially where the stomach exhibits great irritability, by immediate rectal feeding.

Influenza, grip, or la grippe, is raging in several cities of the United States, and Canada may soon expect to be invaded by the epidemic. Authorities have not yet definitely settled whether this rancorous enemy of the old and debilitated and rapid vanquisher of the robust is infectious or contagious. It is probably right to the mark to say it is both. It comes like a thief in the night and strikes down alike the strong and the weak, the rich and the poor. It is no respecter of persons. Thousands fear it, especially those who are never strong, and who have before been prostrated by its crushing onslaught. It has been described by one layman as a disease "that it took you six weeks to get over after you were well," and by another: "The window was up, and in-flew-enza." Though only known to the present generation since 1889-90, it is grey-headed and long past the voting age. In Asia, that continent which report and history have assigned as the birthplace of many contagious diseases, it, too, is said to have been born. As early as 1173 A.D. it was known in Italy, Germany and England. Since then epidemics have occurred at varying intervals up to the time of the great pandemic of 1889-90. Now, any practitioner, anywhere, can pick out cases whenever he wants to. But epidemics are different. Pfeiffer demonstrated the bacillus of influenza in 1892 in pus cells from the trachea, and the bacillus of Pfeiffer is pretty generally accepted as the cause. It is doubtful if any organ of the body is exempt from attack. Hearts have been demoralized and brains practically obliterated. The respiratory organs have been especially selected as almost the natural hunting preserves of the fell organism. Add to these three the gastro-intestinal system and the quartette is a formidable one. Per se it is not so deadly; the complications generally kill. Owing to this fact its pathology is practically nil. What has been found post mortem can be attributed to the complications. It is the "open door" to the streptococcus, the staphylococcus, the pneumococcus, etc. Such being the life history of la grippe, there is one particularly salient feature which presents itself most emphatically—prevention. Prevention of what? First, of complications in the person attacked; second, of transference to other persons. We wish to say a word about the second. It is a lamentable thing that in a disease which is either infectious or contagious, or infectious and contagious, that isolation is practically seldom or never carried out in influenza. This does not hitch up well with modern scientific progressive medicine. In some cases, of course, where people persist in walking out and doing business with the "goods" on them, not even under a physician's advice and care, but under "patent-medicine-in-their-pocket" treatment, not much can be accomplished in the way of prevention. But in others; in those cases brought to bed, here much could or might be done in the way of isolation and subsequent disinfection, to prevent further attacks in that household. Public medicine has not as yet grasped this situation; but we opine it is assuredly "up to" the doctor to begin to do something in the way of prevention in this exceedingly diversified and diabolical malady.

An Oligarchy is a form of government in which the supreme power is placed in the hands of a few persons; also, those who form the ruling few. "All oligarchies, wherein a few men domineer, do what they list."—Burton. A clique is a narrow circle of persons associated by common interests or for the accomplishment of a common purpose—generally used in a bad sense. Nepotism is undue attachment to relations; favoritism shown to members of one's family; bestowal of patronage in consideration of relationship, rather than of merit, or of legal claim. A cabal is a number of persons united in some close design, usually to promote their private views and interests in Church or State by intrigue. There are said to be ulcerations in the hearts of many Toronto physicians, and probably surgeons. Some people are not troubled by thoughts of a day of reckoning. Dictators have before found themselves in the position of culprits. Some will use the knife when they cannot confute. One should be careful to be not artfully encouraged in fatal folly. The years of a man's age limit in the Toronto General Hospital are to be two score and fifteen, but peradventure he has great strength, he may attain to three score years. Surely no man could attain to that age without finding out that there are even some people in the world who do what they think to be wrong.

Narath's Modification of Talma's Operation for Hepatic Cirrhosis.—In the December, 1907, number of "Annals of Surgery," a most interesting paper appears from the pen of Dr. Eugene R. Corson, of Savannah, Ga., on the above subject; and for those who have not had access to this article, we thing a *resume* would prove instructive.

Narath's original paper was reviewed in a short excerpt in the "Medical Record," which reported the results of about one dozen cases, with a brief description of the operation itself. The operation seems to be very simple, may be performed under local anaesthesia, and would appear to be followed by very good results. To quote from Dr. Corson's paper: "Through a small incision in the mid-line below the ensiform cartilage the peritoneum is opened, a bunch of omentum is picked up, drawn out, and tucked under the skin, and stitched in place with a few catgut stitches. The incision in the abdomen is carefully sewed around the base of the omental mass, sufficient to close the abdomen, yet avoiding any constriction of the omental tissue itself. The abdomen is carefully closed in layers, as is now the custom. The operator, as he sees fit, may do a one-sided operation, or he may pick up a second bunch of the omentum and stitch it in on the opposite side, should he think it necessary to increase the area of transplantation. According to Narath, the sub-cutaneous veins become prominent in a week, and the relief to the obstructed portal circulation is at once apparent. He reports no case of hernia, and writes enthusiastically of his method.''

The rationale of the operation, of course, hinges on the estalishment of collateral circulation between the portal and systemic (superficial) veins.

At this point Dr. Corson takes up a discussion of this collateral circulation, quoting largely from a paper by Dr. Rolfe Floyd on ''The Anatomy of Portal Anastomosis,'' a detail into which we need not enter.

Dr. Corson reports but one case of Narath's operation, which, however, shows a most satisfactory result. The patient, a man of 43, has a good family history, but a personal history of having had typhoid, dysentery, malaria, yellow fever, and syphilis. Patient has also had gonorrhoea several times. Has used intoxicating liquors in moderation for part of his life, and also to excess during a later part of his life. On first seeing him, patient had pronounced ascites, face drawn and characteristic; was thin and somewhat jaundiced; the urine showed a trace of albumen. Patient was first tapped and two gallons of fluid withdrawn, but ascites rapidly returned. Patient then operated upon under general anaesthesia. Through a median incision the liver was palpated, and found to be in an advanced stage of cirrhosis. A bunch of omentum was tucked under the skin on right side, spreading it out as much as possible. There was no reaction from the operation. At the end of a week there was a distinct increase in the size of the abdominal veins. The abdomen, however, filled up rapidly again, and about one month after the first operation, a second was performed, when a bunch of omentum was tucked under the skin on the left side, just below the first omental graft. After this second operation the patient almost immediately expressed himself as feeling better. Though there was an evidence of re-accumulation of fluid, it was neither so rapid nor so extensive. He was not tapped again.

In a letter from the patient, written about two years after operation, the patient reports himself as much better, and holding his own in a very satisfactory manner.

Dr. Corson says: "Considering the condition this man was in at the time of operation, and complicated, too, by syphilis in its secondary stage, the result obtained by this operation seems to me remarkable. In the few cases I have seen reported of successful Talma operations the patients have undergone repeated tappings until the collateral circulation was equal to the emergency. In this case the collateral circulation seemed to have been established quite rapidy . . . The success attained in this advanced case would point to a much greater success for the operation if done in the beginning of the cirrhotic process."

Editorial Notes.

Ophthalmotoxic Tests.—The recently discovered fact that the topical application of the toxine of a specific micro-organism will cause a very definite local reaction in a subject suffering with the corresponding infections seems to be opening new fields in the realm of diagnosis. The application of this principle in tuberculous disease by von Pirque was the first step toward its practical employment. His tuberculin "vaccination," or "cuti-reaction," as it is called, has proved to be of considerable assistance in the discovery of tuberculous disease in children. Calmette's suggestion, however, that the tuberculin be applied to the conjunctiva has developed a much more trustworthy method. The preparation is instilled into the eye, and in tuberculous subjects there develops a very distinct reddening, which lasts for from twenty-four to forty-eight hours. In the healthy subject the reaction, if present at all, is very much milder and of shorter duration.

Calmette advises the use of a solution in sterile physiological salt solution of the tuberculous toxines obtained from Koch's "old tuberculin" by precipitating with 95 per cent. alcohol. Dr. Baldwin, of Saranac, prefers to use a weaker solution, and advises a one-third or one-half per cent. strength. The amount used for a single test is one drop, and Dr. Baldwin suggests that enough for one or two tests be put up in sealed glass tubules, which can be easily opened and used as needed.

Continental workers report very favorably on this test, and in this country interest is rapidly growing concerning this very simple diagnostic procedure.

Chantemesse has recently applied this principle to typhoid fever, and, although his work has not been substantiated, his results are very encouraging. The typhotoxines are obtained by cultivating the Bacillus typhosus in bouillon of beef spleen, the medium being contained in large flasks which allow of the exposure of a considerable surface to the air. After incubating for a number of days, these cultures are filtered, sterilized, and treated with absolute alcohol. The precipitated toxine is then dried and dissolved in normal saline solution in a strength of 1 per cent. This is used just like the tuberculin preparation in the ophthalmic test, and the resulting reaction is very similar. It seems not unlikely that this test may be serviceable in an earlier stage of the disease than the agglutination test. The possibility of the further extension of this new test to other infectious diseases is evident.—*New York Medical Journal.*

The Ablation of the Tonsils.—Until the function of the tonsils has been definitely settled there are likely to be differences of opinion in regard to the treatment of the various pathological conditions to which they are subject. Some authorities regard them as the portals of entry of many different forms of infection; others look on them as valuable protective agencies, while still others consider them as not of very great importance in either direction. It seems not unlikely, however, that both of the first two of these views are correct, for it is perfectly conceivable that like most collections of lymphatic tissue the tonsils have a protective function, while at the same time if the toxic process becomes too severe they may be overwhelmed and themselves be converted into foci of infection. The question of whether or not the hypertrophied tonsils so frequently seen should be removed resolves itself largely into a consideration of their condition. If the hypertrophy is a simple one and the tonsillar tissue itself appears healthy the assumption is physiological process intended to compensate for increased functional demands, but if the hypertrophy gives rise to local disturbances or there is infection of the tissues themselves surgical treatment is indicated. Barth (*Deutsche medizinische Wochenschrift*, December 5, 1907) is convinced that it is only the diseased tonsil that affords a means of entry for systemic infections while a single hypertrophy does not necessarily demand treatment. He also points out that in removing the pharyngeal tonsil the submucosa should be left intact as, if the curetting is done too deeply and the entire mucous membrane is removed, the resulting cicatrization may lead to undesirable local conditions in the roof of the pharynx. —*Medical Record.*

News Items.

THERE were 785 violent deaths in Montreal in 1907.

THE deaths in Toronto in 1907 numbered 4,563; the marriages, 3,635.

FROM 1899 to 1905 inclusive, there were 29 triplets-births in Ontario.

DR. MOORE, late of Hornings Mills has moved to Toronto Junction.

DR. A. B. CUTCLIFFE has been appointed market inspector of Brantford.

THERE were 6,715 births in Toronto in 1907, two a day more than in 1906.

SELKIRK, Man., has a new general hospital, with 25 beds, at a cost of $15,000.

DR. PROCTOR, Port Perry, has sold his practice and property to Dr. J. D. Berry.

DR. E. N. COULTS of Agincourt, has been appointed an associate for York County.

DR. W. J. STEVENSON has been elected president of the London Medical Association.

THE birth rate in Montreal in 1907 was 44.20 per 1,000. No "race suicide" there.

DR. ALFRED E. MORGAN of Toronto, is now an Associate Coroner for the City of Toronto.

MEDICAL journals could not exist without advertisers; therefore, patronize our advertisers.

DR. NORMAN, assistant Superintendent of Orillia Institute for the Feebleminded, has resigned.

DR. S. T. WHITE of Shelburne who has just returned from the old country will practice in Toronto for the present.

In 1899 there were 296 twin pregnancies in Ontario; 1900. 401; 1901. 469; 1902, 523; 1903. 492; 1904, 549; 1905, 526.

Toronto surgeons heard with regret of the sudden death of Dr. Nicholas Senn. Chicago. on Jan. 2, 1908. Dr. Senn was in his 63rd year.

The general hospitals in Toronto, Toronto General, St. Michael's, Grace and Western, will hereafter charge public patients 70 cents per day.

A Certain doctor in a great city is a well-known anesthetist. The other day a man rushed into a prominent drug store and asked where he could get Dr. A., the atheist.

The number of illegitimate births is decreasing from year to year in Ontario. In 1899 there were 808; 1900, 800; 1901, 812; 1902. 819; 1903, 782; 1904, 798; 1905, 699.

Pinocodeine (Frosst) will be found a good remedy in coughs, bronchitis, la grippe and in other conditions where a sedative remedy is indicated in respiratory troubles.

John Grafton Herald, a young medical student of Queen's University, and a son of the late Dr. John Herald, Kingston, suicided at Winnipeg on the 21st of December, 1907.

Winnipeg's death rate in 1907 was 12.6 per 1,000 of the population. The births were 3,323; marriages, 1,900. Typhoid fever claimed 380 as against 1,174 in 1906 and 1,699 in 1905.

Dr. Emory of Toronto, who was formerly registered with the College of Physicians and Surgeons of Ontario, as a Homoepath, had his registration changed in 1902 to that of a regular practitioner.

Dr. Thos. McPherson of Stratford, who has since July 1 last occupied the position of junior house surgeon at Throat Hospital, Golden Square, London West, has just secured the diploma F. R. C. S. of London, England.

According to Dr. Chas. A. Hodgetts, Secretary of the Ontario Board of Health, Ontario is largely an unvaccinated Province. He estimates that during the last ten years, smallpox has cost Ontario municipalities about $2,000,000.

The H. K. Mulford Company, Philadelphia, is issuing working bulletins. No. 1 was on Bacterial Vaccines; No. 2 on Tuberculin and Tuberculin Therapy. They will be pleased to supply copies to any practitioner applying for same.

Dr. D. C. Murray, M.A., M.D., formerly of Atwood, has purchased the practice of Dr. Rooney. Dr. Murray, after graduating from Toronto University, spent one year as house surgeon in Grace Hospital, Toronto, and since that has been three years in active practice. Dr. Rooney will remain in the business for some time yet.

Old friends and acquaintances in Colborne were deeply grieved to learn of the death on Monday, Dec. 23rd, 1907, of Dr. Fred J. Bradd, of Peterboro. He had been ill about one week. Deceased graduated from Colborne High School, afterwards taking up medicine. He practised for a time at Omemee, but for some years has been having a successful practice at Peterborough.

The "Special (Illustrated) Progress number" of *Clinical Medicine* for January, contains excellent articles by Geo. M. Gould, John V. Shoemaker, G. Frank Lydston and other writers. Dr. Geo. F. Butler, an excellent and leading American authority on therapeutics conducts an innovation in medical journalism in this issue, namely,—Clinical Medicine Post-Graduate School of Therapeutics.

Dr. Phillip J. Strathy, Toronto, died suddenly at his home on the morning of the 2nd of January, aged 45 years. The late Dr. Strathy was a genial, large-hearted man, well beloved by all who knew him. He was at one time demonstrator of anatomy at Trinity Medical College. At the time of his death he was one of the chief medical examiners for the Manufacturers' Life Insurance Company.

Canada lost its oldest practising physician on the 17th of December, 1907, when there died at St. John, N.B., Dr. William Bayard, who for over seventy years had followed the profession of his choice. Dr. Bayard was 94 years of age, was a graduate of Edinburgh University (1837); a past president of the Canadian Medical Association and of the New Brunswick Medical Society. He was the founder of the St. John General Hospital.

Publishers' Department

Change of Scene and Proper Medication.—During the past two months we have met with more la grippe than anything else, and the number of cases in which the pulmonary and bronchial organs have been very slightly or not at all involved, has been greater than we have noted in former invasions. On the contrary, grippal neuralgia, rheumatism and hepatitis have been of far greater frequency, while the nervous system has also been most seriously depressed. With each succeeding visitation of this trouble we have found it more and more necessary to watch out for the disease in disguise, and to treat these abnormal manifestations; consequently we have relied upon mild nerve sedatives, anodynes and tonics rather than upon any specific line of treatment. Most cases will improve by being made to rest in bed and encouraging skin and kidney action, with possibly minute does of blue pill or calomel. We have found much benefit from the use of antikamnia and salol tablets, two every three hours in the stage of pyrexia and muscular painfulness, and later on, when there was fever and bronchial cough and expectoration, from an antikamnia and codeine tablet every three hours. Throughout the attack and after its intensity is over, the patient will require nerve and vascular tonics and reconstructives for some time. In addition to these therapeutic agents, the mental condition plays an important part, and the practitioner must not lose sight of its value. Cheerful company, change of scene and pleasant occupation are all not only helpful, but actually necessary in curing the patient.

Cough, regardless of its exciting cause, is a condition that every physician often experiences more or less difficulty in relieving. While the agents designed for its relief are numberless, it is a matter of common knowledge that but few of them are of general utility, for the reason that, although they may be capable of effecting relief, in doing so they either derange the stomach, induce constipation, or cause some other undesirable by-effect. The ideal cough remedy must combine sedative and expectorant properties without exhibiting the slightest system-depressent, gastric-disturbing, constipation-inducing or palate-offending action. Nor should it contain any ingredient the prolonged use of which would cause a drug-habit. Then, too, it must be of sufficient

4⁸

Dominion Medical Monthly

And Ontario Medical Journal

VOL. XXX. TORONTO, FEBRUARY, 1908. No. 2.

Original Articles.

POSTERIOR OCCIPITO PRESENTATIONS.

BY J. R. MCCABE, M.D., STRATHROY, ONT.

Examiner in Obstetrics for Ontario Medical Council.

One of the most important changes in obstetrics during the past quarter of a century has been the swinging of the pendulum or centre of gravity from suffering woman to the relief of that suffering by the use of chloroform and forceps, and though some women require neither chloroform nor forceps, yet many do, and no practitioner now takes charge of a case without a supply of chloroform and his favorite instrument ever ready when occasion demands.

Probably no presentation of all on our list will require chloroform and forceps as often as posterior occipital, and no presentation will give the woman so much pain and the obstetrician so much anxiety as this same presentation.

I say pain for woman, for in the first place the pains are strong and regular, which causes continual suffering, or the pains are weak and irregular, or both, which causes great delay, and the case is prolonged three or four times longer than an ordinary case. And the anxiety to the obstetrician is caused by the great delay, but principally by his doubting his own diagnosis; hence, in discussing this paper this afternoon, if we can remove these difficulties and give clear-cut and decisive views on these two points—diagnosis and treatment—we will have accomplished the task allotted by this association and have rendered service to every practitioner in attendance, since about 17 per cent. of cases are occipito posterior, and five times as many are occipito right rather than occipito left.

In discussing the diagnosis, I emphasize the fact that no doubt should exist in your mind whatever. You cannot doubt that you doubt, and you must be positive. Most of the delay and suffering is caused by delay in making diagnosis. You cannot be positive of your diagnosis in making it in the ordinary way. Palpation will give you important information. Never omit palpation, for it is a ready means of making a quick examination and forming an opinion, afterwards to be confirmed or disproved. I will not follow the diagnostic points gained by palpation. They are familiar to you all. Vaginal examination is of great value, but sometimes of very little value here, especially if case is delayed and labor has been in progress for some time, because the head undergoes marked change in shape, i.e., it is lengthened from chin to occiput and compressed in other directions, and the ordinary landmarks are obliterated. However, we should all make the vaginal examination, and should all know exactly what to feel and where to feel it.

As the right occipitio posterior exist far more frequently than the left, we will confine our discussion to the right, as the reverse obtains for left. Now what attracts your attention first :

1. There is something wrong; the familiar points are not present, or, if they can be felt, they are not in usual place.

2. The small fontanelle points to the right sacro illiac point.

3. The saggital suture lies in right oblique diameter.

4. Large fontanelle is pointing to the left illio pectineal eminence, either high or low.

All this is very fine, but if you cannot distinguish the small fontanelle from the large one; if you cannot be sure which way the saggital suture runs, you may find the large fontanelle very low, or it may be very high, so that it cannot be reached. Usually it is very low, for in these cases there is very poor flexion. Then doubt exists, labor is not advancing, the woman is becoming exhausted, the relatives are saying, "Doctor, can't you help her? Don't let her suffer." Here the obstetrician is in a dilemma. Gentlemen, I never wait; I always make sure of my diagnosis. I leave no doubt in my mind about exact position of head. I give chloroform and put up my hand and find posterior ear, which removes all doubt about diagnosis, and leaves you ready to carry out the correct line of treatment. For you cannot treat correctly except you diagnose correctly. Before referring to treatment, however, permit me to draw your attention to position and mechanism. The head will be obliquely posterior, and it will either rotate anteriorly or it will become directly posterior. i.e., the occiput will rotate into the hollow of the sacrum; occasionally it will remain obliquely posterior. Only about 2 or 3 per cent. of these cases rotate with occiput into hollow of sacrum. and this is usually brought about by the large fontanelle occupying a lower level than the small one: hence anterior rotation of the sinciput; consequently posterior rotation of occiput. If such takes place the child will be born in that way, with face to the pubis. In these cases the region anterior to the large fontanelle strikes the anterior portion of the pubis: then the occiput is slowly pushed over the anterior margin of the perineum, extension takes place and occiput falls over backward and justified that the overproduction of lymphatic tissue has been a brow. nose. mouth and chin appear successively under the symphysis pubis.

Only a very small majority end in this way. We have mostly to deal with the obliquely posterior, i.e., those cases with head lying in the right oblique diameter. For sake of clearness. I will divide these cases into two classes:

1. Those with good flexion or the one with the large fontanelle high up. The one with fontanelle lying opposite the acitabulum in the right oblique line. This is the more favorable variety in which the occiput always rotates to the front or can be easily rotated to the front by the hand. This is the one which, if left alone, will have the greatest chance of rotating spontaneously, since the occiput will strike the pelvic floor first and follow the normal law of rotation.

2. The one with head not well flexed. The anterior fontanelle in this case is low down and can be easily felt; there is extension here. This is the unfavorable variety. These are the difficult cases, and, if left alone, extension will become more acute, the sinciput will strike the pelvic floor first, anterior rotation of sinciput will take place, and it will end as a case of direct posterior occipital, or occiput into hollow of sacrum. Now, many of these obliquely posterior cases, especially the ones in good flexion, will rotate spontaneously; others can be easily rotated when making your diagnosis with hand on posterior ear.

A third class: the patient would have to be placed in correct position, chloroform given, and head grasped between the thumb and four fingers of right hand ,and during the interval of a pain rotate the occiput forward.

A fourth class: The head becomes so impacted, or remains so firmly in oblique diameter that it can neither be rotated nor pushed upwards with the hand. To this class, gentlemen, I wish to draw your attention to the double application of the forceps. This operation was first introduced by Scanzoni, many years ago, and revived by Williams. Williams is very much impressed with his success in this line. In applying the forceps in first step, Williams applies the blades with the pelvic curve looking towards the face of the child; whereas in the second manipulation it looks towards the occiput in the usual way. You will first pass your hand up into left segment of vagina and locate the posterior ear, and over this is applied the left blade. You then apply the right blade in a similar manner. Forceps is then locked. The saggital suture now occupies the right oblique diameter of the pelvis. Downward traction is now made until the head is brought to the pelvic floor, when a rotatory motion is given to the forceps and occiput is rotated to the right transverse, and later to oblique anterior. Forceps is now removed and re-applied in the usual manner and delivery completed. The very best results are claimed for this manipulation, and although we have had several occipito posterior in this vicinity this past three months, we have treated these all by hand rotation, with the exception of one, which rotated into hollow of sacrum and was delivered very successfully with face to the pubes without any laceration. However, every practitioner should familiarize himself with this manipulation, so that, should occasion arise, he will be equal to that occasion. Williams, who is a recognized authority on this subject, says: "By this method I have obtained most satisfactory results, and have been able to deliver many women with ease after the usual methods had failed. Indeed, my experience has been so satisfactory that I have ceased to dread occipitor posterior presentations, and now regard them with equanimity, feeling that delivery can be safely effected when necessary."

THE MODIFIED SALICYLATE TREATMENT.

By William Osenbach, M.D., Indianapolis, Indiana.

Since the introduction of salicylic acid into the therapeutics of rheumatism by Maclagan, there has been quite some change in the views as to the causation of rheumatic conditions. Formerly we were taught to regard the disease as the result of an accumulation of uric acid or lactic acid in the system, and it was supposed that that specific effect of the salicylates was due to their neutralizing these substances and rendering them powerless to harm the tissues.

Gradually with the extension of bacteriological researches into the causation of disease many investigators were led to regard acute articular rheumatism as a germ disease, although no specific organism has yet been discovered.

The change of ideas as to the etiology of rheumatism, however, has not brought a corresponding change in the treatment. Salicylic acid and its salts still continue to be the most prominent remedies. To the general practitioner these theoretical considerations are of no practical value unless they lead to a radical change in the treatment. What we are particularly interested in are improvements in our older forms of medication, and it is for this reason that I venture to say a few words here in regard to a new form of salicylic acid, which, in my experience, has shown itself superior to the sodium salicylate or the other members of this group.

It is a well known fact that there are many persons who cannot take the salicylates for any length of time or in sufficient doses to derive any benefit from their use, and that in some they are directly injurious. This is especially the case in patients suffering from digestive or circulatory disturbances, and, unfortunately, these are the very ones who most often require these drugs. In rheumatic conditions of the acute type we are compelled to saturate the system with salicylic acid for some time in order to neutralize the toxic material in the blood, and it is there that their irritating effect upon the digestive organs and their depressing action upon the heart are particularly observed. Some of the substitutes for salicylic acid are practically salicylic acid disguised in some form or other. Thus, for instance, a certain physician of my acquaintance, who was afflicted with rheumatism, took salicylic acid in 4 to 8 grain doses, without any relief. Some one suggested to him to try certain capsules of proprietary character which were said to be absolutely safe and reliable. He took them for a short time and experienced decided benefit and later was completely cured, but he was left with marked digestive disturbances, muscular weakness and depression of the heart. Afterwards he found that the capsules contained ten grains each of salicylic acid.

It has been recommended that the unpleasant effects of salicylic acid can be avoided by using a pure quality of the drug obtained from vegetable sources, but the physician has no positive way of knowing that his patient will get the pure article, and moreover, the injurious action of the acid is due less to impurities than to its inherent irritating and depressing effects.

To my mind substitutes for the salicylates which are insoluble in the stomach and are not decomposed until they reach the intestinal canal are the most logical, since by their use we avoid gastric irritation, which is one of the chief obstacles to the administration of salicylic acid. Among the preparations of this kind we have salophen, salipyrin, and lately aspirin. I have for some time investigated the last named drug, because it approximates most closely to the salicylates in its percentage of salicylic acid, and therefore comes nearer being a substitute. It also seems to me that its gradual decomposition and absorption in the intestinal canal is accountable for the fact that unpleasant by-effects, such as tinnitus, headache, and cardiac depression, are much rarer than in the case of the salicylates.

In connection with aspirin I have lately employed another new salicylic acid derivative as a local application, named mesotan. It is intended to replace the oil of wintergreen which has been largely used locally in liniments or in the pure state. Experiments made with the new preparation, however, have shown that it is much more easily absorbed than the oil of wintergreen and that in the milder forms of rheumatism it yields sufficient salicylic acid by absorption to do away with the necessity of giving the salicylates internally. My experience, however, does not agree with this, and I have been unable to note any beneficial effect from its use if applied alone. The best results were observed in acute inflammatory cases, the more acute and active the inflammation the more pronounced the results. The first improvement noticed was the reduction of the swelling and a marked lessening of the pain. No irritation of the skin was seen, except in one of the cases referred to below, and in this I believe it was due to other causes. Its psychical effect, however, cannot be ignored. The mere fact of rubbing in a small quantity of a drug gives an impression of power, and the odor being unknown and peculiar suggests a new remedy, and to this the laity attach a good deal of importance. Aside from this, however, I believe that the drug has a definite physiological action resembling that of the salicylates, and reinforcing their effects when internally administered.

Before making an application of mesotan I direct that the painful parts be covered with a cloth rung out of hot water and kept on for a number of minutes, or order a warm bath. If this is done immediately before applying the mesotan the effect seems to be more rapid and pronounced. I have employed mesotan in the pure state, but now prefer a mixture of equal parts of olive oil, as is generally recommended.

Below I have given the histories of a few cases treated with these drugs, both favorable and unfavorable, and these will serve to illustrate in some measure the results observed.

Case I. Mr. T., aged 27 years, clerk, suffered with an attack of acute inflammatory rheumatism affecting the right shoulder. There were present marked pain and swelling, the temperature being 100. F. Treatment. Aspirin, 10 grains, was given every two and one-half hours at first and the mesotan mixture applied locally in amounts of a teaspoonful twice daily. There was, however, no apparent relief until the third day, when a diminution in swelling and considerable relief from pain were noted. The same treatment was continued and on the sixth day the patient was entirely well.

Case II. Miss L., aged 42 years, housekeeper, was seized with acute inflammatory rheumatism of the right knee, having had three previous attacks in the same joint during the last two years. Aspirin, 5 grains, was administered every three hours, and she was instructed to apply the mesotan mixture in one-half teaspoonful quantities two or three times a day. No improvement was observed at the end of the third day, but the treatment was continued as before. At the end of the sixth day, however, little progress had been made, except that she rested better at night. Mesotan was then discontinued on account of a slight local irritation, and the aspirin increased to 15 grains every three hours, with the result that after three days' treatment she was well on the road to rapid recovery.

In this case I did not see any benefit from the mesotan, and no special relief from pain was noted after its application.

Case III. Mr. H., clerk, complained of muscular pain, more severe in the back of the legs, and severe headache. Pain and soreness in the lumbar region was so great that any movement of the body caused great suffering. Aspirin, 10 grains, was administered every two hours until eight doses had been taken, and then every three hours during the following day. Mesotan was also applied to the lumbar region three times daily. At the end of the third day he was completely cured.

Case IV. Mrs. S., aged 33 years, was suffering with a severe attack of lumbago, being unable to get out of bed. Aspirin was prescribed in ten grain doses every three hours until nine doses had been taken, and then every four hours. Mesotan was applied twice a day. In addition to these a lithia tablet was taken in a glass of water, three times daily. Under this treatment the patient was out of bed doing her work on the fifth day.

These cases have been selected from a much larger number, and they show that under the plan of treatment outlined above the patients, as a rule, speedily recovered from their rheumatic ailments without suffering from any of the unpleasant and injurious by-effects of the salicylic acid treatment. My impression is that by using mesotan in combination with aspirin smaller doses of the latter are required and the relief of symptoms is accelerated.

Selected Article.

VIVISECTION.

By Andrew MacPhail, B.A., M.D., Montreal.

There are questions of science and there are questions of sentiment; but there are also questions in which both science and sentiment are combined. To this class vivisection belongs, and the present aim is to establish the proper relation existing between these two factors. Much work has been done on this subject at different times, and evidence has been adduced on both sides by the staunchest opponents. The evidence has been recorded, but no systematic attempt has been made at a summing up from which any plain unprejudiced mind could draw an authoritative conclusion. All that now remains is to consider the evidence offered, and to point out on which side, according to all reasonable rules, the decision must lie.

The store of published facts concerning vivisection in America is singularly small, because in this country it has never really become a public question, but in England, on the occasion of the first attempt at restrictive legislation, in 1876, the conflict between those who favored the practice and those who opposed it was singularly keen.

There are two classes of persons working to lessen pain: those who oppose vivisection, striving to prevent the sufferings of animals, and the vivisectors whose motive is the seeking after truth and knowledge, which will go toward alleviating the sufferings of humanity, and of the animals themselves through scientific medicine or applied physiology. That these two classes, who have a common aim, should hold views so conflicting must be due to some misapprehensions which it is intended the present exposition of facts will help to remove.

If it can be shown that the pain and death which vivisection implies have been wrought for the good of humanity, by leading to knowledge, light, and power, and that this knowledge, light, and power could have been arrived at in no other way, and that these are so considerable that mankind would be badly off without them, then the case for vivisection may be considered proven. But if, on the other hand, it is clear that vivisection is practiced indiscriminately with no object in view but to satisfy an idle curiosity, that suffering is inflicted out of proportion to the benefits received, that it is not a useful means of obtaining information which is procurable in some other way, and is essentially bound up with cruelty, then grounds may be said to exist for its limitation, or even its actual suppression. What restrictions, if any, should be laid upon the practice are to be considered afterwards.

By vivisection is to be understood the operating with cutting instruments or other means on the bodies of living animals. The objections advanced against it are mainly three: the cruelty involved, the consequent injury to the moral nature through the infliction of a wrong, and that the practice is not justified by the results. It will first be necessary to estimate the amount of pain actually caused, for in this the principal fallacy lies.

In the transition from life to death there are three stages: the first, marked by loss of consciousness; the second, cessation of breathing and heart action; and the third is initiated by those changes that characterize the rigidity of final death and decomposition. An animal may have life and not be "living," that is, it may be alive but unconscious and without the capacity for suffering pain. The animal lies perfectly quiet and appears dead; it can be pricked or cut in the most sensitive parts and give no signs of pain. The only functions that remain are breathing and heart beating; all consciousness is asleep, and these two mechanical operations alone are unsuspended. It is under these conditions, induced by anaesthetics, that most vivisection is performed. The heart may be in full working order, the respiratory movements unimpeded for hours after consciousness has disappeared, and in the case of cold-blooded animals even for days. Operations performed on such an animal are rightly classed under the head of vivisection, but to brand them as improper is as unreasonable as to charge the skillful surgeon with cruelty, who uses all care in removing a tumor from a living but unconscious patient. By the use of those anaesthetics which physiologists habitually employ the animal is rendered unconscious. This is the moment the vivisector chooses for his work. He brings into use the instruments of his research. He watches the ebb and flow of blood, the throbbing of vessels, and takes tracings of them; he measures their force; he gathers the juice which a gland secretes; he divides one nerve and stimulates another, or poisons a third. He records his observations and finishes a painless but profitable death in one of a variety of ways. Just as anæsthetics have rendered the surgeon's task a simple one and enlarged his sphere, so they have rendered new experiments possible and have become as great a necessity in physiology as in surgery.

Dr. Yeo submitted the following estimate as to the proportion of operations that caused pain:

Absolutely painless	75
As painful as vaccination	20
As painful as the healing of a wound	4
As painful as a surgical operation	1
	100

This is on the assumption that the capacity an animal has for suffering is equal to that possessed by a human being. As a matter of fact, the cases in which anæsthetics interfere with the progress of an experiment are exceedingly rare except in certain researches on the functions of sensory nerves, but these functions have already been worked out, and as it now stands the percentage where pain is an essential factor is lower still. The public mind has been befogged by the use of a single term, vivisection, for two separate things: experiments upon sentient and upon non-sentient animals. It would be easy, one would think, to distinguish between these two, yet Miss Cobbe, speaking for all opponents of vivisection, says, "We find it practically impossible to separate torturing from non-torturing vivisection," and Mr. Bergh implores pardon for saying "that, if the rose would smell as sweet by any other name, surely the blood of tortured animals would also retain its repulsive odor under any other designation."

The question whether vivisection is good or bad is not affected by saying that there are other things equally wrong, the agonies caused by sportsmen to birds dragging their wounded bodies to some hidden covert, the piercing cries of the hunted hare, the suffering of the brave fox as his living body is to be torn by the pursuing hounds, or that the pain caused by vivisection ever since it was practiced is as nothing compared with the suffering animals undergo in transportation and in slaughterhouses for the satisfaction of man's bodily needs, or to assert that in every agricultural community vivisection is being performed constantly for no purpose but to increase the power of man over male animals and to make the noblest of these beasts of burden more easily answerable to his guidance, or to show that the ghastly scenes which anti-vivisectionists conjure up from physiological laboratories with their "torture troughs," represent no such cruelty as is depicted in Snyder's "Boar Hunt," or in Landseer's "Death of the Otter." It is also useless to point out that the most earnest vivisector may be an ardent lover of animals, and that his deepest endeavor is to alleviate their suffering in common with that of mankind, or to affirm that their opponents are actuated by an unmanly sentimentalism.

First, there is the principle that should govern man's conduct in relation to animals. Without swearing to the words of any teacher, or committing one's self to any school, it may be laid down as a truth that life is a struggle, a struggle with fellow men, with living beings, animals and plants, and with the lifeless forces around us. The conditions in which men find themselves inevitably lay upon them this burden, and they are obliged to use the means they find around them in this struggle, amongst which are the lives of animals. If, then, man is to prosper he must kill animals, it may be tigers, sheep, or vermin. It is a duty imposed upon him by nature, even if a painful duty, but self-preservation demands it. The rule cannot be laid down that an animal may be killed for one purpose and not for another, that life may be taken to gratify an appetite or nourish the body, but not to increase the existing store of knowledge or benefit the mind.

The only test is whether the death of an animal is likely to be of benefit to society at large. Man must be fed; he is justified in killing and eating sheep; man's success in this struggle for existence depends on superior knowledge; he is justified in killing a frog or rabbit if it can be shown that human knowledge is thereby enlarged. But he is not justified in causing pain if it can be avoided, or unless pain is of advantage to him. Death is painful in itself, but that does not mean he is to abstain from killing; it means that he is to kill with the least possible pain. One could imagine a costly system of anæsthetizing animals about to be slaughtered, but no one has shown it to be practicable, just as a surgeon may not find it practicable to administer chloroform where some local anæsthetic like cocaine or the ether spray would serve the purpose nearly as well.

It was pointed out that to justify vivisection the information must be obtainable in no other way. Let this be qualified by saying "in no other reasonable way;" and, to illustrate, place the only two means that are in any way reasonable side by side. Take cholera, for example, in which experiments have been conducted on both principles. On the one side are the scientific infection experiments of Thiersch and others following him, performed by vivisection; on the other hand are the popular experiments which have at various times been performed during cholera on human beings, by companies supplying them with water and other commodities. Even the most confirmed antivivisectionist will commend the former way. But even if this knowledge could be arrived at in "some other way" at some future period, what of the suffering and death that must in the meantime come to the human race? What of those who must die unaided till the light comes in some hypothetical and mysterious way, and of those now living, whose lives are due to their laying hold of the remedies and the prophylactics which vivisection has brought?

But it is not certain that the knowledge could be obtained in any other way, for the discovery of the lethal agents in the transmission of disease was only, and could only, be determined by means of experiments on living animals.

It remains to be proved that the human race has benefited considerably by the results obtained from vivisection. To discuss this in detail would involve the tracing of every step in the progress of medicine, for medicine is no longer an art to be practiced by rule of thumb, and whatever progress it has made is due to observation and experiment. There was reason for the mocking words of Voltaire, when he jeered at the old physicians, "pouring drugs, of which they knew little, into bodies of which they knew less." They were doing their best in those pre-vivisection days; they gave the white spots on a leaf to consumptive patients; they gave the carrot in jaundice because it was yellow; for kidney diseases they gave fruits which resembled that organ. They were groping in the dark unaided by the light of experiment, and men were dying around them of complaints that to-day it is unnecessary to feel. Contrast the present position of medicine with that of fifty years ago, and you have a measure of the value of experiments, for the most part performed on living animals. Experimentation on animals for the benefit of humanity is the keynote of modern medicine, and the physician who underestimates its value is out of tune with the best that is said and thought on the subject. Physiology is at the basis of rational medicine, and it is to physiology the physician must seek if he would be anything more than a "medicine man," a dispenser of chance-gotten drugs. Experimental pathology is the synthesis, as clinical diagnosis is the analysis of disease, and physiology reduces the facts to a system. If physiology consist in the study of vital processes going on in living organisms, it follows that many of them must be studied as they actually take place. It is useless to appeal to the dead body, for though there the changes can be noted the processes will have passed away. In the dead body there is no disease. As Virchow remarked, disease presupposes life.

It will be possible to refer only to the most notable examples of vivisectional results in relation to the practice of medicine, but enough will be given to obtain for it the justification of practical utility. Vesalius, the founder of anatomical study, states in his work on the human body that it was through experiments on living animals he was led to his wide generalizations in anatomy which, before his time, consisted of shreds and patches of crude observation and false induction. Harvey, "having frequent recourse to vivisections," received the first hint of the circulation of the blood, by watching the palpitating heart of a living creature. Haller, who by his doctrine of "irritability," laid the foundation of the true physiology of the nervous system, wrought through pain and death to animals. Charles Bell and Majendie traced out the distinction between motor and sensory nerves, and Marshall Hall demonstrated by vivisectional methods the occurrence and importance of reflex actions, by which one-half of our life is controlled. Weber demonstrated in the same way the inhibitory action of the pneumogastric nerve upon the heart, and laid down the principles of a rational treatment for the prevention of heart failure in diphtheria and other acute diseases. Du Bois-Raymond, Pfluger, Floureus, Brown-Sequard, Schiff, Vulpian, Goltz, Waller; in fact all physiologists by their work attest that if physiology is not a hopeless puzzle and a baseless fancy it is due to the results of experiments on living animals. The chemistry of living beings was worked out in the same way by Lavoisier and Priestly, who first made out the chemistry of respiration. The chemistry of digestion and nutrition would yet have been a phenomenon and a guess if it were not for the labors of Schmidt and Bidder. Fever and inflammation, old mystic words, were never understood till Claude Bernard and Cohnheim made their researches on the vaso-motor nerves of living animals. It was by vivisection Aselli and Pecquet discovered the system of lymphatic vessels and Malphigi the capillary circulation. Artificial respiration was made a practicable means of resuscitation by Vesalius, Hooke and Lowe, through experiments made upon dogs. The experiments of Rev. Dr. Hales on pressure of the blood in the arteries are also to be noted. In the seventeenth century Sir Christopher Wren and other Fellows of the Royal Society experimented on the transfusion of fluids, and recently it has been made a means of saving life. In 1835, a committee of physicians at Dublin showed how heart sounds are produced and enabled clinicians to diagnose the various forms of heart disease. Duhamel in 1740, Sir Astley Cooper in 1820, Syme in 1831, and more recently Ollier and others have conducted experiments on living animals to show the processes by which wounds are healed and injured parts restored, and especially how fractured bones are united, the practical results of which are inestimable. The surgery of the old days has been robbed of its horrors through the results of vivisection. The "fearful fear of hemorrhagy," that the old surgeons felt, is now groundless, through the experiments made in ligaturing the arteries of animals. By this simple process the boiling oil, the vitriol, and caustics, the hot searing irons, and receptacles for blood are no longer seen at an operating table, where the surgeon is willing to avail himself of the benefits to be derived from vivisection. It was by such experiments the Esmarch bandage, a bandage applied to a limb about to be amputated to prevent the flow of blood, came into use. This inaugurated bloodless surgery. The principles of antiseptics were studied on animals, and with the introduction of aseptic methods all dread of pyæmia, fever, tetanus, and secondary hemorrhage have disappeared. Inflammation is no longer a formula "redness swelling heat and pain," since by the experiments of Bernard, Virchow, and Cohnheim, and later by Redfern and Von Recklinghausen, on the blood cells in the leg of a frog and the eye of a rabbit, its secret has been pierced, and following it, new knowledge of abscesses, ulceration, gangrene, and clots.

The present abdominal surgery had its origin in vivisection. In the American Civil War out of 3,717 cases of wounded intestines 3,273 ended fatally. A series of experiments was conducted in Chicago, in which 37 dogs were etherized and shot, when the feasibility of opening the abdomen was proved. The percentage of fatal cases after such injuries at present is 12; before this experiment it was 88; that is, the position is exactly reversed, and if these experiments in vivisection had been performed before the Civil War, 3,273 soldiers, instead of 446, would now be living, and their injuries would not even be considered grave. Sir Spencer Wells, by operating on dogs, introduced the practice of suturing the peritoneum, and reduced the percentage of fatal cases from 34 to 11. Out of 1,000 cases of his, 760 were saved and 17,800 years added to the sum of human life. Martin, of Berlin, in the same manner, proved the possibility of ovariotomy, and performed this operation, which a few years ago used to be denounced as murderous, in 130 cases, with only one fatal result. By these observations on the opening and suturing of the peritoneum of animals, and the treatment of the pedicle by ligature, abdominal surgery is now a matter of routine.

Another feature in modern surgery is the progress made in operations on the brain, and all of these are based on experience gained by vivisection. Hitherto the brain was looked upon as "the oracle of God," but Dr. Ferrier, by his experiments on animals, demonstrated the location of sensory and motor functions in the cerebral hemispheres as clearly as if the skull and membranes surrounding the brain were transparent.

Dr. MacEwan, of Glasgow, in one year saved the life of ninety patients by following Ferriers methods. In one year Dr. Echeverria collected 165 cases of epilepsy, of which 75 were cured by following the principles of localization laid down by Ferrier; yet for these experiments the eminent physician was hauled before the magistrates as if he were a malefactor.

Thousands of patients died from malignant affections of the kidneys till Simon at Heidelberg demonstrated on animals the possibility of its extirpation and the performance of the excretory function by a single organ.

By the experiments of Gerlach, it has been shown that tuberculosis in cows can be communicated to healthy animals, such as man, fed upon their milk; that the disease may be induced by tubercular matter being inhaled or taken into the stomach, facts of importance in relation to the prevention of the disease. By the sacrifice of a few dogs and rabbits information was obtained which may have, and as a matter of fact has had, an important bearing upon the safety of the human race.

These results were arrived at by making on a few animals experiments which men for generations have in blind ignorance been making on themselves. Cholera has already been referred to, and since 1884 Freire, in Brazil, has been working to obtain a specific against yellow fever along vivisectional lines, and is only waiting for an epidemic to put his results at the service of mankind.

Dr. Wood, by "baking alive," at 120 degrees, two pigeons, ten guinea pigs, twenty rabbits, and six dogs, that is, subjecting them to a temperature of 120 degrees, a degree of heat which laborers often experience in summer, proved that sunstroke is due to the coagulation of the bodily fluids, and from this he deduced the proper treatment, abstraction of heat from the body. The "morality" that will take offence at experiments such as these deserves the pitying contempt we would accord to personal cowardice. The only gleam of hope that has ever come to a patient affected with that terrible malady diabetes has been through Bernard's experiments on the formation of glycogen in the liver, and until the mystery is cleared up by the death of more animals the treatment of the disease must remain a matter of empiricism.

Whatever of good Pasteur has conferred on mankind he has accomplished by vivisectional methods, and yet the results are out of all proportion to the pain inflicted. There is a danger of becoming technical in pointing out that it was through observations made upon the tadpole by Arnold it was found out that blood vessels are formed by the hollowing of protoplasmic cells, and to enter upon a discussion of what embryology owes to vivisection would take one far beyond the present limits and the needs of this discussion.

The modern method of pharmacology is based on vivisection.

Instead of "experimenting" on patients, the effect of a new drug is tested upon the frog, rabbit, or dog. Its mode of action is exactly ascertained, and the physician knows what organs and structures will be affected, how they will be influenced, and the changes which will be produced by the progress of a disease. Even if the charge were true that vivisection had never added a drug to the pharmacopœia it would prove nothing, for it is the work of the vivisectionist to test the effects of existing drugs and define their uses. A few instances will suffice. If nothing were ever learned by vivisection but the action of digitalis upon the heart, the pain caused would be abundantly justified. Bromide of ethyl was brought forward as an efficient anæsthetic, but a vivisectionist by the death of a few dogs prevented a series of those dreaded accidents, death on the operating table, which would have followed its use. By operations on animals, Bernard discovered the hypodermic use of drugs, and Majendie of strychnine. Traube explained the real nature and use of digitalis, and Maure of saline purgatives. Luchsinger, following up the clue obtained from experiments on dogs, demonstrated the value of strychnine as a preventive of night sweats in consumptive persons, and by the same means nitrite of amyl was shown to allay the agony of angina pectoris, and pepsin to be of value in dyspepsia. In the same way jequirity was introduced in opthalmic surgery, salicylic acid in rheumatism, jaborandi in dropsy, iodoform as an antiseptic, and the bromides, chloral, and paraldehyde as analgesics. All the new drugs—antipyrine, exalgine, and antifebrine—that have cooled so many fevers and alleviated so much suffering, were all tested and their effects proved on animals. Who would have dared to use cocaine on the human eye, like all anæsthetics, "God's best gift to his suffering children," with all the risk of inflammation, if its effects had not first been ascertained on animals?

But this charge is not true, for Dr. Lauder Brunton has shown that between 1864 and 1867 seven drugs were added to the pharmacopœia, and from 1867 to 1874 eleven were added.

Even commercially, vivisection has been of the greatest practical importance. Dr. George Fleming, in his work on Veterinary Science, makes some estimates of the results. In one district in France sheep to the value of £213,600 died in one year of anthrax, and in Russia 100,000 horses died annually till Braueil, followed by Delafond, Davain, Chauveau, Toussait, and Pasteur, perfected the knowledge of the poison and showed the means by which its energy may be abated. The desolating scourge of the cattle plague was stayed, and the silkworm disease was brought under complete control by Pasteur. Smallpox of sheep, the swine plague, distemper of dogs, and chicken cholera can be prevented by inoculation. The exact method of the propagation of pleuro-pneumonia in cattle has been made out, which is the first stage in discovering a remedy. The ravages of epidemic fever in cattle and analagous diseases of horses and sheep have ceased since their nature and mode of prevention have been discovered by vivisectional methods, and hydrophobia is now robbed of its terrors. Glanders, a disease "as infectious as syphilis and as fatal as tuberculosis," can only be diagnosed by the method of inoculating animals.

Another use vivisectional experiments have been put to is in the detection of murderers who have resorted to poison. The notorious Lamson, who was executed in England in 1883, may be mentioned. He used aconite to kill his victim, and the presence of the drug was only proved by its effect on small animals. If it were not for this, secret poisoners might enjoy all the immunity that was formerly obtained in the days of the Borgias.

It will be permissible to place in evidence some important statements on the value of vivisection. The International Medical Congress, held in London in 1881, which was attended by three thousand physicians and surgeons from Great Britain, America, and foreign countries, passed unanimously the following resolution: "That this Congress records its conviction that experiments on living animals have proved of the utmost service to medicine in the past, and are indispensable for its future progress, and while deprecating the infliction of unnecessary pain, it is of opinion that in the interests of man and of animals it is not desirable to restrict competent persons in the performance of such experiments."

At the same Congress, Mr. Simon, principal officer of the Government Board, speaking in connection with diseases of horned cattle, of carbuncle and marsh-fever, ventured to say "that in the records of human industry it would be impossible to point to work of more promise to the world, and they are contributions which from the nature of the case have come, and could only have come, from experiments on living animals." Before the British Medical Association, in 1881, Professor Humphrey declared "almost every advance in our knowledge of the working of the human body has been made through vivisection."

As Mr. Wilks puts the case for England, "All the leading men in Europe, those who are best capable of forming a true judgment have expressed their opinion strongly in favor of experiments on animals, and have at the same time supported their opinion by an exposition of facts. Opposed to these savants are certain lords and ladies, certain bishops and members of Parliament, who, with all the dogmatism of mature ignorance, declare that "vivisection only panders to curiosity, without doing anything for science"; "that it is a detestable practice not attended with scientific results." I would ask the reader to picture to himself a platform on which Virchow, Pasteur, Humphrey, Foster, Simon, Huxley, and Fraser unite in the statement that the remarkable advance in medical science and art during the past twenty years is due to experiments upon the lower animals, and immediately afterwards a sincere rural dean and a conscientious auctioneer uniting in stating "that experiments on animals led to no useful results."

In the United States resolutions affirming the value of experiments upon animals, and deprecating legislative interference, were adopted by seven medical schools, by the New York Medical Society, and by sixteen organizations in various localities. Three of the leading American universities have been quoted in support of the practice, and to the number is to be added Harvard Medical School, a believer in the experimental method.

But, after all, there are a number of experiments, a small number, which necessarily involve pain to animals, and in their defence it is only necessary to fall back upon the original position that the pain is justifiable for the sake of the good that is accomplished. These are the ones necessary to demonstrate the effects of drugs, of poisons like that of cholera, and such as were performed by Chossat, in which the animal must be deprived of food, but the experiments which cause pain become fewer and fewer as physiology advances, until all that remains to be studied is pain itself, and the physiologist can study that best upon his own body.

Some hasty opponent has recommended vivisectors to practice among themselves. And so they have. The names of Toynbee, found dead in his laboratory; Christison, Hunter, Heinrich, Dvorak, and Schiff need but be mentioned in this connection.

It is not a pleasant occupation spending one's days and nights in nauseous dissecting rooms, surrounded by dead and dying animals. Physiologists have found themselves ostracised and vilified, and their practice ruined; but the misrepresentation which they have suffered has not stayed their hand from working for science and humanity. They subjugate emotion and feeling to judgment.

The provision that vivisection should not be practiced unless there is a probability of beneficent results must not be pushed too closely, for science must be untrammelled. The science of to-day brings us nearer to the science of the future, and one truth may in an unseen way be the germ of others. Science has only to do with the seeking of truth: utility will follow in its train.

Who, for instance, could foresee that a simple physiological preparation, the leg of a frog with its living but non-sentient nerve in the hands of Galvani, was to be the origin of Galvanism, electricity, and allied subjects?

If one urge that experiments may be performed on one class of animals and not on another, it may be said in reply that no two persons could agree where to draw the line between the tadpole and the dog, and some might even include within the pale the phylloxera that formerly destroyed the vineyards of a nation.

For the benefit of those who deny that utility and morality have any interdependence it will be necessary to refer to the ethics of vivisection. If there is a moral wrong involved in experimenting on animals, then, they say, no considerations of utility can justify it, even if by the death of one animal the light would break upon the pestilence that stalketh in the darkness, that there may be a knowledge which man is bound to forego, and that the alleviation of pain is not the highest good. According to the same principle, it were better to starve than to do that violence to the moral nature which is involved in the death of a creature. They say that honor should deter man from exercising the tyrant's power, which nature has given him, and that is well nigh impossible to deal rightly with animals when men are at the same time judge, accuser, witness, and culprit.

Another class of objectors resist scientific research because it loves what art hates, analysis; and yet another class, because they accuse it of attempting to reduce God to a "physical necessity." To the one it may be said that art itself must have a basis in truth, and "to the solid ground of nature trusts the mind which builds for aye." The other class of objectors is urged to remember that the "Kingdom of God is within."

But the greatest show of reason is with those who object on what they call "moral grounds." Arguments have been urged against them by Virchow, who held that an animal was a man's "honestly bought chattel," and by Dr. Carpenter, who affirmed that moral duties exist only towards those possessing moral responsibiilty, but these do not meet the case. As reasoning beings, we can only be reasonable when we deal with the facts around us as we find them. It would be easy to conjure up Swift's land of the "houyhnhnms," where the relations between men and beasts were reversed, but with this condition we have not to do: there is no brotherhood between man and beasts. Without insisting too strongly on the fiat which went forth in the worlds first spring time, "Let man have dominion over the fish of the sea and over the fowl of the air, and over the cattle, and over all the earth," it it undeniably one of the principles of creation that animals are subordinate to man for his use in the progress of life. Nature has ordained it, and Nature is not without pain to living beings whilst they dwell in this world, or whilst they come into or leave it. "The whole creation groaneth and travaileth in pain." Man has to live; like the Apostle, he is enjoined to "rise, kill, and eat." Man's duties towards inferior creatures must taken in man's nature, which he cannot discard. Therefore, his relations towards animals can only in a qualified sense be regarded as ethical, and the divine injunction cannot apply: "Do unto others even as ye would that they should do unto you." It would involve one in a tiresome discussion to include a consideration of sacrifice, vicarious and by compulsion, but it might be noted that the Great Teacher admitted that mankind was of more value than many sparrows.

If vivisection is productive of good to humanity it remains to be considered under what restrictions, if any, it should be practiced. Vivisection and cruelty are in no way bound up together, and even if in some countries it appears that improper methods are used it does not follow that the practice should everywhere be restricted. Because exiles are badly treated in Russia, it does not follow that no criminals should be sent to Siberia or that lawbreakers should go unpunished.

It yet remains to indicate the course and results of legislation in restriction of vivisection, from which it will appear that it has been both futile and harmful. The only country where restrictive legislation is really in force is England, though the attempt was made in Germany, Sweden, Denmark, and the United States. The first important legislative attempt to restrict the prosecution of physiological research was by Lord Hartismere's Bill in 1875 in England, which aimed to restrict the work to specified places and licensed persons, and compelled the use of anæsthetics in every case. It was objected to as destructive of original work and never came into effect. Then a Royal Commission was appointed, composed of Lord Cardwell, Lord Winmarleigh, Hon. W. E. Foster, Sir John Karslake, Professor Huxley, Mr. Erichsen, and Mr. Hutton, to enquire into the "practice of subjecting live animals to experiment for scientific purposes." They examined every person in England likely to throw any light on the question. The evidence is contained in a bulky blue book, and in that report it is stated:

"The imputation of cruelty, which has always been indignantly repudiated, has not been substantiated by a single authentic instance. In their evidence given before the Royal Commission, the Society for the Prevention of Cruelty to Animals state through their Secretary that 'they do not know a single case of wanton cruelty.' The report also recommended 'that no ban be placed upon vivisection.' "

The teachers of physiology addressed a memorial to the House of Commons, in which it was stated: "We repeat the statement, which most of us have made before the Commission, that within our personal knowledge the abuses in connection with scientific investigation, against which in this bill it is proposed to legislate, do not exist, and never have existed in this country. The memorial was signed by Professor Sharpley, University College, London; Dr. William Carpenter, London Hospital; Professor G. Humphrey, Cambridge; Professor Rutherford, Edinburgh; Dr. Pavy, Guy's Hospital; Dr. M. Foster, Trinity College, Cambridge; Dr. Bourdon Sanderson, University College, London; Dr. Robert McDonald, Dublin; Professor Redfern, Belfast; Professor Cleland, Galway; Professor Charles Cork; Professor McKendrick, Glasgow; Dr. Pye-Smith, Guy's Hospital; Professor Yeo, King's College, London; Mr. Charles Yule, Magdalen College, Oxford; Professor Gamgee, Owen's College, Manchester.

The Belgian Special Commission's report, published in July, 1890, practically substantiates this position. Notwithstanding the failure of a Royal Commission to obtain evidence of the abuse of physiological vivisection in Great Britain, the Legislature was induced in 1876 to pass an enactment in which it is prescribed:

1. That experiments must be performed with a view only to the advancement by new discovery of knowledge which will be useful for saving or prolonging human life, or alleviating human suffering.
2. That they must be performed in a registered place.
3. By a person holding a license.
4. The animal must, during the whole experiment, be under the complete influence of some anæsthetic.
5. It must be killed before it recovers consciousness.
6. Experiments must not be performed for demonstration.
7. They may be performed for the purpose of acquiring manual skill.

In 1883 Mr. Reid introduced another bill, but it never came to a discussion. If it had passed it would have stopped all progress in physiology, pathology, and pharmacology in those places coming under the influence of its provisions. The Home Secretary, Sir W. Harcourt, affirmed at the time "that under the then existing circumstances there was very little infliction of pain, and what suffering was caused was abundantly justified for the benefit of humanity at large."

The effect of this mischievous and meddling legislation was disastrous to English physiology, and compelled those who practiced vivisection to flee to France and Germany and to draw upon the United States for their medical knowledge. Mr. Lister found the working of the Act so "vexatious as to be practically prohibitory," and went to Toulouse to carry on his investigations. This scientist, whose observations and experiments in connection with infection have been the means of saving thousands of human lives, was obliged to discontinue his investigations and conduct them in other countries. He said: "Even with reference to small animals, the wording of the Act is so vexatious as to be practically prohibitory of experiments of a private practitioner unless he chooses to incur the risk of transgressing the law."

Dr. Greenfield, Pathologist in Edinburgh University, who was at work on investigations for the prevention of splenic fever, was forced to write: "I have not been engaged in other investigations for the simple reason that with the present restrictions and the difficulty of obtaining a license, I regard it as almost hopeless to attempt any useful work in this country. As the result of my experience it is my opinion that these hindrances and obstacles constitute a most serious bar to the investigation of disease and of remedial measures. When to this is added all the annoyance and opprobrium which are the lot of investigators, it is to be wondered at that anyone should submit to be licensed." He also mentions the case of a surgeon who came to him with what appeared to be a remedy for lock-jaw, to have it tested before using it upon a patient; the law forbade the experiments and the patient died.

Professor Fraser writes: "In several instances in which the objects were of the highest interest, and in which the importance of the results could not be predicted, the Government has constituted itself the supreme arbiter of science, and has ventured to decide that certain experiments were not required and should not be performed. I have only just now experienced the mortification of being refused a license, where permission was requested to perform a few experiments on rabbits and frogs with a reputed poison used by the natives of Borneo to anoint their arrows."

Professor Foster thus sums up his views: "This legislative action has gone far to cripple physiological research in this country. Our science has been made the subject of a penal Act. We are liable at any moment in our enquiries to be arrested by legal prohibitions. We are hampered by licenses and certificates. We are asked to make bricks when they have taken the straw away from us." Speaking of the Congress of 1881, in which Virchow declared the charge of cruelty was a subterfuge, Dr. Foster says.

"One good fruit of the present Congress is 'that our foreign brethren, seeing our straits, will go home determined to resist to the utmost all attempts to put the physiological enquirer into chains, for we are assured that experiment is the best weapon with which he can fight against the powers of darkness of the mysteries of life.' "

Sir James Paget thought it intolerable that he might pay a rat-catcher to poison the vermin about his place, and not be permitted to use them for the good of mankind, or that he should have to appeal to a Government official for leave to prick a mouse.

Dr. Lauder Brunton was engaged in England in experimenting with the poison of venomous serpents, when restrictive legislation was introduced and put an end to them. But the Government that introduced the legislation supplied Dr. Weir Mitchell and Dr. Reichert, who lived in a more reasonable country, with the snakes, and they succeeded in isolating the poison. This was necessary before discovering an antidote to a poison which annually carries off twenty thousand victims.

Mr. Horsley, in the *British Medical Journal,* protests against the difficulty of obtaining a license, and Dr. Wyatt Johnston observed that the incubation period of disease should be lengthened, since it usually developed before a license could be procured. Scientific men are averse to be licensed like publicans or prostitutes. They refuse to work in an atmosphere of distrust and suspicion, even upon subjects not prescribed by law, and object to having their laboratories searched by detectives as if they were smugglers' dens. Notwithstanding the existence of a law which limited the number of persons performing experiments to twenty-six in England, Scotland, and Ireland, and under which the Government inspectors continually spoke of the cruelty practiced as "insignificant," "inappreciable," "equal to that caused by vaccination"; the opponents of vivisection were not satisfied. This was in the face of the report of the inspectors appointed by the Government. In 1878 they reported that there were not more than forty cases in which "an amount of suffering worth noticing was inflicted." In 1879 the number was twenty-five, ten of which were on frogs, and in the other fifteen the suffering was about equal to that caused by vaccination. In 1880 and the two following years the inspectors report that there were only ten cases in which any pain was caused. The Irish inspectors reported that "the experiments were free from any appreciable suffering." Mr. Bush, in his report for 1884, admits that the "amount of direct or indirect actual suffering as the result of physiological and therapeutic experiments performed under the Act in England and Scotland was wholly insignificant." He then specifies that in the case of three frogs, six mice, thirty minnows, and sticklebacks, some suffering might have been caused—a grand subject truly for a nation of whose new-born six per cent. die yearly from neglect. This legislation, so sweeping in its provisions and so drastic in its results, one would think, left to the votaries of the suppression of vivisection very little to desire. One of the foremost of them, Mr. Colam, acknowledged that after employing the "surveillance of detectives" he could "not accuse the physiologists of cruelty." Yet in 1883 every endeavour was used to have vivisection totally prohibited. But, after all, Frances Power Cobbe, the chief scribe of the anti-vivisectionists, was led to exclaim, that "anti-vivisectionists recognized that their work must take the shape of an ethical and religious agitation."

The law hampered and harassed the vivisectionists for a time, till they were able to take up their work in other countries, but the total amount of pain inflicted was not diminished by one iota. Fortunately for humanity, there were centres where researches could be carried out, but the results have not gone to further the credit of English physiological work, being arrived at under the ægis of foreign schools. The public is exacting of the ability of a physician, but by a senseless agitation it forbade the means of acquiring knowledge. Yet it has not been slow to avail itself of the advantages derived from physiological research, and would stand aghast if medical men were to cast aside what has been gained by the method of vivisection and return to the days when quacks flourished and vended their vaunted nostrums, their charms and cure-alls.

In the United States there is really no restriction placed upon vivisection, and the discussion of the question has been meagre. Professor Dalton makes the general statement: "The exhibition of pain in an experimental laboratory is an exceptional occurrence. As a rule, all the cutting operations are performed under the influence of ether." This is because the infliction of pain is generally no part of the experimenter's object, and on every account it is preferable to avoid it. In his own demonstrations he says: "I do not make experiments upon animals involving more pain than is caused, for example, by pithing to kill, or injecting an anæsthetic subcutaneously."

In 1867 an Act was passed by the State of New York "for the more effectual prevention of cruelty to animals." It declared it a misdemeanor to "unnecessarily or needlessly mutilate or kill any living creature," but nothing in the Act was to be construed "to prohibit or interfere with any properly conducted scientific experiments or investigations performed only under the authority of some regularly incorporated medical college or university of the State of New York." This law was so vague its provisions did not interfere with vivisection any more than the Blue Laws prevent reasonable recreation on Sunday.

At the session of 1881, Mr. Henry Bergh introduced into the New York Legislature a bill providing, "That every person who shall perform, or cause to be performed, or assist in performing, upon any living animal an act of vivisection, shall be guilty of a misdemeanor," and "the term vivisection used in this Act shall include every investigation, experiment, or demonstration producing pain or disease in any living animal, including the cutting, wounding, or poisoning thereof." The attempt was renewed in 1882, and again in 1883, but since that time nothing has been heard of the bill, and vivisection in America is practically untrammelled, a fact the English Government has not been slow to take advantage of to evade the provisions of its own laws. From this it appears that vivisection can be practiced in a civilized country extensively and carefully, without cruelty or unreasonable pain, and without legislative interference. Indeed, the physiologists and legislators of the United States have proved the case for unrestricted vivisection. As the celebrated Owen said, "The Legislature of the United States of America, assailed by well-meaning ignorance, has refused to pass a law which would cast an unproven and unmerited stigma on scientific men."

If anti-vivisectionists claim that legislation has not diminished the practice as a whole, then their labor has been in vain; if they claim that it has, then they have committed a wrong against humanity in the light of the benefits vivisection has bestowed. But it is impossible to apply these principles by any other than moral force, and the great work the opponents of vivisection have wrought is, that they have stimulated and rendered sensitive the moral sense of operators, which deters them from unnecessary cruelty. In England and America, where the moral nature of the operator and community is well grounded, the suffering has been shown to be inappreciable, the number of operators small, and the operations few, but even on the continent there is nothing to show that cruelty is practiced at the present day. In a common German manual of physiology this rule is laid down: "An experiment involving vivisection should never be performed, especially for purposes of demonstration, without previous consideration whether its object may not otherwise be attained. Insensibility by chloroform or other drugs should be produced whenever the nature of the experiment does not render this absolutely impossible." Indeed, Professor Schiff of Geneva, one of the best known of continental vivisectors, has never found it necessary to practice on a feeling animal.

Dr. Pye-Smith, in his address before the British Association in 1879, laid down the lines on which anti-vivisection legislation is at all permissible. "The only restriction which Christian morality imposes upon such practices is that no more pain shall be inflicted than is necessary for the object in view. Any one who would inflict a single pang beyond what is necessary for a scientific object, or would by carelessness fail to take due care of the animals he has to deal with, would be justly liable to public reprobation." This means that the physiological laboratories should be licensed like dissecting rooms under the Anatomy Act in England, and licenses given only to persons of adequate knowledge and known character, and that then the experts should be left to follow their own methods.

Upon the question of the restriction of vivisection, Professor Dalton says, categorically: "I think investigators and teachers should be the sole judges as to what is necessary in their investigations and teachings." Dr. L. S. Pitcher believes it only necessary that "the public should be informed of the truth relating to vivisection in order that there should be secured to science every advantage and privilege which its advancement may need." Professor Wesley Mills, the leading physiologist in Canada, declares openly that a scientist can be the only judge of the rights and obligations of his own profession. Dr. Osler, his predecessor, later of Johns Hopkins, was of a similar mind.

In Dr. Yeo's table it is admitted that only one experiment in a hundred is painful. Legislation aims to deal with this one case, and in doing so suppresses the other ninety-nine as well. The way to insure that not more than one case in a hundred shall be painful and yet science go untrammelled is not by legislative enactments based on sentiment and insufficient knowledge, but as Frances Power Cobbe, its most ardent opponent admits, "by an ethical and moral agitation," by a more refined morality on the part of the operators and the community in which they live, brought about by the methods of ethics and religion. The action of the Societies for the Prevention of Cruelty to Animals, by countenancing the extremists who would suppress vivisection, has alienated the support of physicians whose position and relations would be invaluable in furthering the general aims of the Societies. The medical journals are no longer shy of the practice. Under the influence of public opinion at one time they spoke of vivisection apologetically and with caution; in recent years they adopt no line of excuse, and treat the objections of the opponents with aggressive scorn, confident that false sentiment, assumptions, and illogical reasoning cannot, in the long run, retard the progress of light.

It does not appear either that restrictive legislation has lessened the sum total of cruelty, or that physiologists have altered their methods under its compulsion. It will always be ineffective, because there will continue to be communities not overpowered with "genuine British narrowness," where biologists can labor unimpeded in the name of truth, science, and humanity.

The extent to which legislators should interfere with vivisection is very limited, unless they choose to incur the responsibility Darwin speaks of that "he who retards the progress of physiology commits a crime against mankind." Physiologists themselves assent to the principles laid down by Sir Thomas Watson: that experiments must not be performed at random to see what will happen; that they must have some object in view, a question to settle or a doubt to remove, and with a reasonable hope of resulting benefit; that operators have the skill, judgment, and intelligence, and previous knowledge to make experiments successful and instructive; that they guard against everything that would enhance pain, and do nothing out of mere curiosity.

Looking at the whole question from the distance of a few years, and in the light of the results that have been attained since then, it is clear that the outcry against vivisection has been the result of a popular delusion that cruelty and vivisection were synonymous, that the experiments were useless and unnecessary, and that the same knowledge might have been gained in some other way.

But the present exposition of facts shows that vivisection is not of necessity cruel, and should not be interfered with, since:

1. It has tended to correct and extend our knowledge of the functions of the human body.

2. It has aided in obtaining exact knowledge of the processes of disease.

3. It has tested the remedies by which diseases are to be controlled.

4. By it the means have been ascertained of checking contagion and preventing epidemics both in man and beast.

5. Poison can be detected.

6. All this information could have been obtained in no other way.

7. There is no moral wrong involved in the operations either to animals, to operators, or to spectators.

While physiologists and physicians know it as a fact that the road to a more perfect medical science lies through experiment, it may be painful experiment, they can afford to resist the clamor of those whom they would serve, believing, by the added experience of two centuries, with Harvey of immortal name, who, in speaking of this same subject, declared that skill and knowledge could be arrived at "*non ex libris sed ex dissectionibus.*"

During the past seventeen years very little has been heard of the controversy in the United States, and interest in it has largely passed away. No new legislation has been created upon the subject in any country. In all countries, save England, the practice of vivisection is without legal restriction. In Germany, on March 27, 1906, two petitions were presented to the Reichstag, praying that the matter be dealt with; but Professor Von Bergmann having explained that vivisection was based on a purely humanitarian purpose, "the House passed on the Order of the day."

All sensible persons are now agreed that medicine as we have it to-day, and as we will have it in the future, is based upon experiments on animals, and that the practice is in no way bound up with cruelty. Those few persons who allege to the contrary have deceived themselves and are striving to mislead others. Their mistatements lie on every page of their writings. They have been convicted before the Courts and they have publicly withdrawn their allegations.

These opponents are few in number and most of them are well-meaning, but they proceed upon the assumption that experimenters are cruel. Indeed, the late Miss Cobbe brought forward the awful charge that they were instigated by lust; and Professor Haliburton, speaking in London on May 16, 1907, was interrupted by the cry, "Lord Lister is a brute."

I admit that they are sincere in their desire to lessen cruelty. The medical profession is equally sincere. Nearly forty years ago a committee of the British Medical Association reported that, in their opinion, anæsthetics should be used wherever possible; that no painful experiments should be performed for illustrating laws of facts already demonstrated; that all painful experiments should be performed by skilled persons with sufficient instruments and assistants, and in laboratories under proper regulations; and that, in veterinary work, operations should not be performed for the purpose of acquiring manual dexterity.

In closing his evidence before the Royal Commission now sitting in London, the representative of the Fellows of the Royal College of Physicians said, on the part of the whole medical profession, that "we have no less regard and sympathy for suffering animals than others, nor any less urgent desire to spare them so far as is compatible with the larger claims of humanity." Mr. W. P. Byrne, of the Home Office, which has to do with the enforcement of the Act of 1876, expressed the belief that the chief protection which animals had was the desire of experimenters to exercise all possible humanity, a feeling which he was sure was in the mind of every experimenter. The public opinion of the other men working in the laboratory, another witness said, was adequate safeguard.

The violence of these agitators has wrought evil to all humanitarian effort. They take their stand upon what they call "moral ground" and endeavor to reinforce their position by publications which they are forced to withdraw, untruths which they are obliged to correct, and slanders for which they are induced to apologize. Thus all ethical questions are brought into disrepute. Many of these persons are consistent and will not employ animals for food; but the sum of their contribution to human knowledge is that a vegetarian diet does not conduce to truthfulness or sweetness of temper. Such self-abnegation is worthy of all respect if it proceeds from a spirit of humaneness and not from recalcitration.

This violent conduct is peculiar to England, where a large section of the public is always sacrificing itself; the males going to gaol rather than pay taxes, and the females because they want to vote. Such extremists find it difficult to be moderate in speech. They are easily led away from the truth, and they do not seem to see the distinction between what is true and what is not true. This makes us sorry, for they are in other respects good people.

It will be useful to set down a few examples of their unwisdom, so that humane persons who retain their sanity may be induced to remonstrate with them. There is a peculiarly flagrant case in the London *Daily Mirror*, November 6, 1906, in which it is stated that deeds which are alleged by a nameless writer to have been done in France seventy years ago are done in England to-day. In the London *Tribune*, November 8, 1906, a story of horrible cruelty to a cat was published as part of the evidence given before the Commission now sitting. The following day the paper acknowledged that it "had been victimized" and apologized "very frankly." Yet the fabrication was repeated in *The Christian*, April 4, 1907, although it was characterized formally before the Commission as "absolutely false." Q. 3673. Three newspapers in London habitually publish untruths about the Commission. They say it is conducting its enquiry behind closed doors, and that the revelations are "too terrible to mention."

(To be continued.)

The Canadian Medical Protective Association

ORGANIZED AT WINNIPEG, 1901

Under the Auspices of the Canadian Medical Association

THE objects of this Association are to unite the profession of the Dominion for mutual help and protection against unjust, improper or harassing cases of malpractice brought against a member who is not guilty of wrong-doing, and who frequently suffers owing to want of assistance at the right time; and rather than submit to exposure in the courts, and thus gain unenviable notoriety, he is forced to endure black-mailing.

The Association affords a ready channel where even those who feel that they are perfectly safe (which no one is) can for a small fee enroll themselves and so assist a professional brother in distress.

Experience has abundantly shown how useful the Association has been since its organization.

The Association has not lost a single case that it has agreed to defend.

The annual fee is only $3.00 at present, payable in January of each year.

The Association expects and hopes for the united support of the profession.

We have a bright and useful future if the profession will unite and join our ranks.

EXECUTIVE.

President—R. W. POWELL, M.D., Ottawa.
Vice-President—J. O. CAMARIND, M.D., Sherbrooke.
Secretary-Treasurer—J. F. ARGUE, M.D., Ottawa.

SOLICITOR.

F. H. CHRYSLER, K.C., Ottawa.

Send fees to the Secretary-Treasurer by Express Order, Money Order, Postal Note or Registered letter. If cheques are sent please add commission.

PROVINCIAL EXECUTIVES.

ONTARIO—E. E. King, Toronto; I. Olmsted, Hamilton; D. H. Arnott, London; J. C. Connell, Kingston; J. D. Courtenay, Ottawa.

QUEBEC—H. S. Birkett, Montreal; E. P. Lachapelle, Montreal; J. E. Dube, Montreal; H. R. Ross, Quebec; Russell Thomas, Lennoxville.

NEW BRUNSWICK—T. D. Walker, St. John; A. B. Atherton, Fredericton; Murray MacLaren, St. John.

NOVA SCOTIA—John Stewart, Halifax; J. W. T. Patton, Truro; H. Kendall, Sydney.

PRINCE EDWARD ISLAND—S. R. Jenkins, Charlottetown.

MANITOBA—Harvey Smith, Winnipeg; J. A. MacArthur, Winnipeg; J. Hardy, Morden.

NORTH-WEST TERRITORIES—J. D. Laflerty, Calgary; M. Seymour, Regina.

BRITISH COLUMBIA—S. J. Tunstall, Vancouver; O. M. Jones, Victoria; Dr. King, Cranbrooke.

Dominion Medical Monthly

And Ontario Medical Journal

EDITORS:
GRAHAM CHAMBERS, B.A., M.B. WALTER McKEOWN, B.A., M.D.

ASSOCIATE EDITOR:
T. B. RICHARDSON, M.D.

MANAGING EDITOR:
GEORGE ELLIOTT, M.D.

Published on the 15th of each month. Address all Communications and make all Cheques, Post Office Orders and Postal Notes payable to the Publisher, GEORGE ELLIOTT, 203 Beverley St., Toronto, Canada

VOL. XXX. TORONTO, FEBRUARY, 1908. No. 2.

COMMENT FROM MONTH TO MONTH.

Progress in Medical Science in 1907.—The tendency to immediate operation in all cases of appendicitis has been on the wane. Surgeons have demonstrated that the operation in the quescent interval is practically void of any danger. Immediate operation is only called for in acute fulminating cases and abscesses; this class of case is in the minority. Unusual articles have been reported found in the appendix during the last year, in one instance a clove, well preserved; eleven small stones in one, which on chemical analysis were found to consist of cholesterin and bile pigment; in another case four small faceted stones chiefly of calcium phosphate.

The Association of Appendicitis to Typhoid Fever, we drew attention to many years ago in these pages, citing an instance where a young lady had been sent into one of our Toronto hospitals, with all the symptoms of acute appendicitis. The surgeon refused to operate, stating the case was not one of appendicitis. A consulting physician stated as positively it was not enteric fever. A week or ten days later there was no doubt of it being typhoid. During the past year attention has been again called to the association of these two diseases, and it has been stated the congestion of the ileo-cæcal portion of the bowel occurring in typhoid fever predisposed to inflammation in the appendix. Cases have been quoted where the two diseases co-existed. No doubt true typhoid inflammation may be present in the appendix itself.

Tuberculosis continues to attract a great deal of attention, and considerable advance was made in education and in the promotion of sanatoria. Although there has been much discussion in Canada and elsewhere, no distinct advance has been made except in Edinburgh and a few other places, where notification has been made compulsory. Probably health authorities have hesitated in advocating compulsory notification of tuberculosis owing to the all too great and unreasonable antagonism towards the tuberculous on the part of the laity. There have been encouraging practical results from a new phase introduced lately in sanatorial treatment, namely, that of graduated labour.

Koch's 1901 Announcements are being gradually offset and disbelieved in; and it seems to be becoming generally accepted as a fact that bovine tuberculosis can be produced in animals by certain strains of tuberculous matter of human kind. According to the second report of the Royal Commission on Tuberculosis, no reason can be shown that man is less susceptible to bovine tuberculosis than any animal. In fact, the Commission states definitely that in many cases—as many as 14 out of 60 human strains—the bacilli of human tuberculosis possessed the characteristics of bovine tuberculosis.

Though Sleeping Sickness, or, rather, a knowledge thereof, is of no practical importance to our readers, it is interesting to know that two young Canadian graduates have made a special study of this unique and attractive disease, and published during the past year a review on the subject of combating it. Drs. Allan Kinghorn and John L. Todd have arrived at these conclusions: A drug as specific in its action on sleeping sickness as quinine is on malaria must be supplemented by the same preventive measures as carried out in destroying the mosquito. As there are no means of destroying the tsetse flies in large numbers yet found out or carried out, strict quarantine and isolation measures should be enforced to prevent the further spread of trypanosomiasis; the value of "atoxyl" is problematical, although it is beneficial, but it must be administered continuously and regularly.

Vaccine Therapy has been the subject of many investigations since Sir A. E. Wright brought opsonins to the attention of the medical world. He in conjunction with other investigators and observers has recently shown that the process of auto-intoxication might come under observation in the beginning of a tubercular infection; and that it is, in fact, a regular accompaniment of the hectic of advanced pulmonary tuberculosis. "They also brought forward evidence to show that in the induction of an auto-inoculation, when this is preceded and followed up by a series of measurements of the opsonic index, there exists a method which can be turned to account for the resolution of some of the diagnostic and therapeutic problems which present themselves for solution in connection with every localized infection which is not accessible to direct bacteriological examination." This will prove valuable in diagnosis in doubtful cases.

The Action of Pituitary Extract has been set forth by two scientists before the Royal Society by Prof. E. A. Schafer and Dr. P. T. Huring, who have made some very interesting experiments and important observations. These experiments were made with the extract upon the kidney. Their conclusions were that pituitary extract has a greater diuretic activity by far than any substance in the whole pharmacopœia. By its action on the vascular system it produces an optimity in renal activity. It apparently also exerts a specific stimulation upon the renal epithelum. They regard it that possibly the extract acts as subordinate or auxiliary to the function of the kidney.

Clean Milk is essential to infantile life; and its production and marketing should concern everybody most vitally. Von Behring believes that most of our adult tuberculosis is taken into the human system while we are yet babies in our cradles. But it is not in this fact there is all the danger. It is the most important single article of diet we have; how requisite, then, is every detail in bringing it clean and pure to the consumer! How lax, however, are some of our boards of health in this respect. Halifax and Fredericton have no regulations governing its production. St. John, N.B., seems to have about the best regulations of any city in Canada. Quebec, Montreal, Ottawa, Kingston, Regina, and Vancouver appear to do about as much as St. John. In Toronto the requirements are 3 per cent. butter fat and 12 per cent. total solids; inspection of milk takes place as delivered. In a recent bulletin on milk from the chief analyst of the Department of Inland Revenue, Toronto, shows poorer than any other district.

The Campaign Against Rats has taken practical form in England. A National Society for the Destruction of Vermin is being formed, with Sir Lauder Brunton as President, Sir James Crichton-Browne, Sir Patrick Manson, Surgeon-General A. F. Bradshaw, and Prof. W. J. Simpson as Vice-Presidents. When the common brown rat invaded England he gradually killed off the "Old English" black rat; and at this day the latter is only found in small numbers in ports and docks. Everybody knows it has been proven beyond question that the black rat caused thousands of deaths every year in India, through bubonic plague. This ubiquitous rodent was feasted upon and infested with fleas; the fleas deserted his dead carcase, carrying the plague bacillus to the blood of human beings. The brown rat remains mostly now in England, and he is not exempt from the charge of carrying other diseases, such as typhoid fever. This brown rat multiplies very rapidly. The female will litter eleven to twenty young every six weeks; the young doe will bear a family at three months. Thus the National Society for the Destruction of Vermin will have its work cut out for it.

The Re-organization of the Visiting Staff of the Toronto General Hospital is now said to be complete. Elsewhere in these pages will be found the announcement as it appeared in the public press. The whole scheme exhibits one very bad and rather nasty feature. Several men have had their heads pole-axed for simply attending faithfully to their duties, and leaving altogether out of sight politics, pull, etc. Now, this unsavory action on the part of either the Board or the medical advisers to the Board is abominable; and occurring as it does amongst medical men, who are sticklers for ethics, smacks of quackery. If this sort of slaughtering is to be a feature of hospital work every few years—and many of the young men recently appointed will bear in mind that their tenure of office is for a year only—then it is high time reform, thorough and lasting, should be inaugurated in all hospitals which receive governmental and municipal grants. Taxpayers, lay as well as professional, should have something to say as to the manner their money is spent. To deny the right of a practitioner, who is a taxpayer, or whose patient may be a taxpayer, to follow that patient into the wards of any hospital, irrespective of his being or not being on the visiting staff, does not seem just as just to that practitioner and that patient as it may be advantageous to the hospital and the visiting staff. In other words, Boards care more for their hospitals and visiting staffs more for their appointments than either care for the patients. It is only the patient and the patient's doctor who is concerned in the case in hand. Every man who is licensed to practice is entitled to practise upon his patient in his own home. The conscientious doctor when he needs the aid of a confrere or specialist, he so advises. Why are there men in the medical profession who for a little questionable fame attached to a hospital appointment will deny the right of other of their regularly licensed confreres to practice in hospitals as well as outside? Why should a poor man, because he has not enough money to pay for his hospital maintenance, have taken from him the right, which he is entitled to as well as any one else, to choose his own medical attendant in any hospital? There are a great many medical men who do not care for hospital appointments. There are others who will pull out tooth and evulse nail to get them. Is their success in life so dependent upon this disgusting wire-pulling? We trow not. It would be just as great, just as distinguished, just as transcendent, if every physician and every surgeon had the privilege, as it is his right, to follow his patient and treat him in any hospital he liked.

Editorial Notes.

Communication from Dr. D. W. Cathell.—Baltimore, Maryland, December 18, 1907. Editors *Maryland Medical Journal*: When one reflects on the ten-thousand-dollar and the one-thousand-dollar and the five-hundred-dollar fees allowed by the new fee table adopted by the Medical and Chirurgical Faculty in May last and published in the December number of the *Journal*, he naturally concludes that such charges are intended to cover either very extraordinary cases or cases occurring in persons noted for their wealth, and we all know that both such classes of cases do occur; but to know that such fees are actually gotten sometimes makes one feel something in his mind and heart akin to envy.

General practitioners also have highly important cases, and as one of them I would mention a non-fee table plan that I often follow, which enables me to obtain a fee that is a little more just to my pocket and to my reputation than it would be ofttimes under the unfair fee table system.

We will now turn to a money subject that is of direct importance to every general practitioner in America.

Looking back fifty or sixty years, we find that neither the amount of practical knowledge then possessed by the average medical practitioner, nor the worth of services based on that knowledge, can at all compare with the wisdom and worth of the average practitioner of medicine to-day, because the great art of medicine itself was then based on much less certain and much less numerous facts than we now possess.

Owing to this lack of development our profession then, and even up to about 30 years ago, was composed almost entirely of all-round men, who were then called "family physicians," but now known as general practitioners, all working under an unjust fee system, thousands of them barely eking out an existence on the pittance their practice brought them.

But since those hygone days medical knowledge and medical practice have undergone great advancement, and this has caused to spring up in all large communities numbers of scholarly and scientific medical men, known as "specialists," who each devotes himself to some one of the various branches of study and practice, and in consequence of their advent our profession now consists of two well-known divisions: Our surgeons gynecologists, laryngologists, oculists, neurologists, alienists, proctologists, etc., in one diviison, known as specialists, and in the other the legion of family physicians, now called general practitioners.

Owing to the good and satisfactory work being done by these specialists and the resulting excellent reputation they have earned for themselves, the size of their charges for services and the time at which their fees are due and payable are no longer governed by the old 1847 fee-table methods, for which they have but little or no respect, but in lieu thereof each of them wisely adopts some more or less definite financial policy of his own, and rightly puts his own valuation on his services to his cases and makes his own terms of payment, naturally taking care to charge this and that patient sums commensurate with his services and large enough to materially aid in giving him and his dependents a comfortable support, with some addition for his own and their needs when he is no longer able to labor; and each rightly leaves every other man to put his own value on his services and to pursue his own methods in collecting.

Money-getting is not the chief object of the worthy physician, yet it always has been, and always must be, one of the objects, because no one can live by his calling without money. Yet in our noble and humane profession everybody, whether specialist or general practitioner, willingly and rightly does, and we hope always will, do his share of "no-charge" work among the worthy poor, and all act as Good Samaritans to any who are in the grasp of physical distress, and each has cases in which he humanely gives to those who appear to deserve it "a poor man's bill," and every practitioner, for one reason or another, often gets but little or nothing from people well able to pay, sometimes not even "Thanks" for very valuable services, occasionally even for saving life itself; and almost everyone also encounters transient, indefinite, chronic, emergency, or minor cases, in which he charges only a meager pay-by-the-visit fee, whether attended at their homes or at his office.

But when it comes to rendering important and well-marked services for patients who can afford to pay just fees there exists a very great difference between the size of the charges and the terms of payment of the specialist and the general practitioner, for then every specialist impressed with a correct idea of the value of his services ignores the number of visits and all other lesser details and names this or that specific sum, with the worth of those services as the basis.

On the contrary, his brother, the general practitioner, in computing the amount he shall charge, even in well-defined and highly-important cases, sometimes even involving life itself, unjustly belittles himself by acknowledging that old-self-belittling method of computing by the number of visits made, with but little or no regard for anything else; and to-day, while the fees of your wiser brethren are estimated by their skill and services, the public is still willing to measure yours by that ridiculous old method, and consequently you seldom or never receive an adequate and just fee in highly-important cases.

When your surgical friend, or your gynecological neighbor, or a specialist of any kind, approaches the fee question his better business system leads him to recall all the difficulties of the case, and the time and the trouble and risk required, and then to "lump his fee into a round sum of even figures, five, ten, fifteen, twenty, twenty-five, fifty, seventy-five, or a hundred dollars, and so on up, and we all know that this round-charge method, instead of injuring one's standing, actually strengthens and extends his professional reputation, and he is apt to receive his better fee promptly, with but little or no quibbling and little or no rebate. You also know by experience that when you call a specialist in consultation your patient cheerfully pays him five or ten dollars for his visit, and often cash.

But when Dr. G. P., after unwisely allowing weeks or months to elapse and one fee after another to accumulate, say seventeen, thirty-four, or even dollars, finally ventures to send his bill, the astonished patient wonders how it is possible that he owes Dr. G. P. seventeen dollars, and may demand to know for whom his or her doorbell has been pulled seventeen times, and poor G. P., after recalling the various visits to several wide-apart cases, fearing that there exists some doubt or objection, to retain their good-will or from pinching need of money, or from fear he may have to earn it over again in collecting it, may actually make a considerable reduction for cash, from this self-pauperizing per-visit amount.

Now, if instead of binding yourself invariably and always to this old per-visit relic of antiquity, you will begin, and, whenever possible, charge a just and feasible "lump sum" for attending the case, and never let the amount sink down to the exact number of visits, it will benefit instead of injuring your reputation, and help your pocketbook, too; and when circumstances compel you to let the fees for two or more cases run together, charge per case for each important one, and be ready promptly to disown the per-visit method, more especially when unusual time is given with the service, or an additional responsibility is placed on you by reason of the patients social position and his importance in the community, or by your having to treat him by a regular and prolonged system.

We are now living under greatly changed conditions and in prosperous times, and although a dollar is still a dollar, yet its purchasing power is vastly less than in 1847, when eggs were six or seven cents per dozen, with everything else in proportion, and it is your duty to yourself and to your dependents to drop this per visit mode of charging whenever the gravity of the case or the responsibility justifies, and in lieu thereof to do good, up-to-date work and then, unless it is an ordinary day visit or an ordinary office call, to make the abstract question of the value of your services the foundation of your charge, taking care that the amount named be sufficient to cover distance, visits, detentions, and all other legitimate features, varying the charge to different people, according to their ability to pay.

If a good patient employs you, and you charge him twenty dollars when some less wise per-visit brother would charge him but thirteen or fourteen, you will still be called when he needs you again if he believes you can do more for him than any other physician in reach, for he is not then thinking about fees, but about personal safety. Indeed, we might almost state it as an aphorism that the physician who habitually charges by the visit instead of by the case, when the services are important, constantly robs himself of both prestige and fees, and in the professional race unconsciously puts his own self in the position of an armless man in a rowing match against men with arms, or a legless one in a contest of speed against men with legs.

Prompt rendition of a just but round-sized bill for an important case begets fuller appreciation of the services, and if you will write on the face of every lump bill rendered the words "important Case," or "Surgical Case," or "Obstetrical Attention," or whatever other awakening explanatory phrase agrees with the facts, it will set the patient to thinking in the right direction.

News Items.

WINNIPEG proposes to establish a children's hospital.

IN December in 1907 there were 159 deaths from tuberculosis in Ontario.

MONTREAL'S birth rate for 1907 is 44.20 per 1,000, 13.21 higher than Toronto's.

DURING 1907 there were 2,727 cases of measles reported in Ontario, with 119 deaths.

SMALLPOX is lessening in Stormont, Dundas, and Glengarry Counties, Eastern Ontario.

HON. SYDNEY FISHER is opposed to granting a site on the Experimental Farm for a tuberculosis hospital.

THE Provincial Government of New Brunswick will consider establishing a sanatorium for Consumptives.

DR. UNSWORTH, of the Mountain Sanatorium, Hamilton, Ont., has resigned and gone to Europe for graduate work.

DR. E. J. TURNBULL has resigned from the Verdun Hospital, and has been succeeded by Dr. Robert King, Montreal.

TORONTO GENERAL HOSPITAL will occupy temporary quarters for its out-patient departments on the new site on College Street.

GLENGARRY PRIVATE HOSPITAL, Montreal, has been closed, and Dr. F. Monod has gone to reside in Paris and practise with his father.

DR. JAMES DOUGLAS, New York, has presented to the Verdun Protestant Hospital for the Insane, Quebec, an adjoining farm, valued at $42,000.

DR. JOHN STEWART, Halifax, N.S., has returned after several months abroad. His many friends all over Canada will be glad to learn he is much improved in health.

MCGILL MEDICAL FACULTY and students held their annual dinner on the evening of the 7th of February, at the Windsor Hotel. Mr. H. W. Garcelon, '08, was the president. (

AT the beginning of 1907 there were 507 patients in the Protestant Hospital for the Insane at Verdun, Que. The admissions during the year were 168. The discharges were 104, and the deaths 39. On the 1st of January, 1908, there were 533 in residence, 284 men and 249 women. Since the opening of the Verdun institution there have been 2,575 admissions and in only about one-third of these has heredity been denied.

The establishment of a Department of Public Health for Canada was the subject of a resolution and debate introduced recently in the Canadian House of Commons by Dr. J. B. Black, M.P. for Hants, Nova Scotia.

Dr. John L. Todd, Victoria, B.C., before leaving to assume his duties as Professor of Parasitology at McGill University, gave a public lecture in Victoria on Sleeping Sickness. Dr. Todd spent twenty-three months in the Congo.

Lieutenant-Colonel Carleton Jones, M.D., Director-General of the Army Medical Service, was in Toronto the 4th and 5th of February, and was entertained at the Queen's Hotel on the evening of the 5th by the Toronto officers of the Army Medical Corps.

Dr. Dickie Murray, Halifax, one of the brightest and most sociable of medical men of the younger generation in Canada, died early in December. Who will ever forget his unfailing kindness and courtesy when the Canadian Medical Association met in Halifax in 1905?

Dr. Lionel Pritchard, of Bay Roberts, Newfoundland, was in town over Sunday. The death of Mrs. Pritchard (*nee* Whiteway), a daughter of Sir William Whiteway, took place at her parent's home, Riverview, St. John's, Newfoundland, on January 21. Dr. Pritchard's old classmates in Toronto, and many other friends, who sent him so many good wishes on his marriage last June, will grieve to hear of his bereavement. Mrs. Pritchard was a delightful girl, arden and enthusiastic, and most devoted to her young husband, whose home was only brightened by her presence for a very few months. Dr. Pritchard left on Monday, February 3rd, to return to his professional work in Bay Roberts, where he has a huge practice, and is very popular.

Toronto General Hospital's New Staff.—After fourteen months' work the Special Committees of the Board of Trustees of the Toronto General Hospital on Staff Reorganization had the satisfaction of seeing the work completed yesterday, when the trustees finally passed the committee's recommendations. The committee recommended that, in addition to the head of each department there shall be a senior assistant, or assistants, and clinical assistants, and that the following gentlemen be appointed to the positions specified: Surgery—Service in charge of Dr. George A. Bingham; senior assistant, Dr. Charles Shuttleworth; clinical assistants, Drs. Wallace Scott and Arthur B. Wright. Service in charge of Dr. Alex. Primrose; senior assistant, Dr. F. N. G. Starr; clinical assistants, Drs. Stanley Ryerson and Samuel Westman. It is recommended that Dr. Clarence L. Starr be given the standing of senior assistant and attached to Dr. Primrose's service for the purpose of being available as an assistant for Mr. I. H. Cameron, the senior professor in surgery in the University of Toronto. Service in charge of Dr. Herbert A. Bruce; senior assistants, Dr. W. J. O. Malloch; clinical assistants, Drs. Warner Jones, John McCollum, and A. A. Beatty. *Medicine*—Service in charge of Dr. Alex. McPhedran; senior assistant, Dr. A. E. Gordon; clinical assistant, Dr. Wm. Goldie. In charge of tuberculosis clinic, under Dr. McPhedran's service, Dr. Harold C. Parsons. Service in charge of Dr. W. P. Caven. First senior assistant, Dr. John Fotheringham; second senior assistant, Dr. W. B. Thistle; clinical assistants, Drs. E. C. Burson and Joseph S. Graham. In charge of the department for the treatment of functional neuroses, under Dr. Caven's service, Dr. D. Campbell Meyers. Service in charge of Dr. Graham Chambers. Senior assistant, Dr. R. D. Rudolf; clinical assistants, Drs. Goldwin Howland and George W. Ross; clinical assistant in dermatology, Dr. D. King Smith. *Gynaecology* — Service in charge of Dr. James F. W. Ross. Senior assistant, Dr. Frederick Marlow; clinical assistants, Dr. R. W. B. Hendry, A. C. Hendrick, Ida E. Lynd, and Helen MacMurchy. *Obstetrics*—Service in charge of Dr. Kenneth McIlwraith. Senior assistant, Dr. Frederick Fenton; clinical assistant, Dr. J. A. Kinnear. *Eye Department*—Service in charge of Dr. R. A. Reeve. Senior assistants (of equal rank), Drs. Charles Trow, J. M. MacCallum, and D. N. Maclennan; clinical assistants, Dr. Colin Campbell and W. H. Lowry. *Ear, nose and throat department*—Service in charge of Dr. Geo. McDonagh. Senior assistants (of equal rank), Drs. D. J. G. Wishart, Geoffrey Boyd, and Perry Goldsmith; clinical assistants, Drs. C. M. Stewart and Gilbert Royce. *Department of anesthetics*—Dr. Samuel Johnston in charge; assistant, Dr. Duncan Anderson. *Electrical Department*—Dr. Charles R. Dickson in charge. Assistant, Dr. George Balmer. The committee recommended that all appointments lower than that of senior assistant should be probationary, and subject to special review before the annual appointments are made; also that in observance of the provisions of the Burnside Trust Agreement, Drs. J. A. Temple and F. L. M. Grasett be appointed life members of the active staff without service. *Consulting Staff*—The committee recommended that the following be added to the consulting staff: Medicine—Drs. John L. Davison, T. F. McMahon, W. H. B. Aikins, Allen Baines, and John Caven. Surgery—Drs. Luke Teskey, R. B. Nevitt, and N. A. Powell. Obstetrics—Dr. Adam H. Wright. Eye and ear department—Drs. G. Sterling Ryerson and G. H. Burnham.

Publishers' Department.

In those grippal cases with dry irritation in fauces, larynx, trachea or bronchi, Pinocodeine (Frosst) will be found an excellent combination to prescribe. Each fluid drachm contains 1-8 gram of codeine phosphate, which rapidly allays the irritability of the nerves and prevents the harassing coughing which, because it is non-productive, is useless and harmful.

The Coughs Following Grip.—Dr. John McCarty (Louisville Medical College), in giving his personal experience with this condition, writes as follows: "Ten years ago I had the grip severely and every winter until 1902, my cought was almost intolerable. During January, 1902, I procured a supply of Antikamnia & Codeine Tablets and began taking them for my cough, which had distressed me all winter, and as they gave me prompt relief, I continued taking them with good results. Last fall I again ordered a supply of Antikamnia & Codeine Tablets and I have taken them regularly all winter and have coughed but very little. I take one tablet every three or four hours and one on retiring. They not only stop the cought, but make expectoration easy and satisfactory. The best results are obtained by allowing the tablet to dissolve slowly in the mouth before swallowing."

Erysipelas-Pneumonia.—June 5, 1905, I was called to attend Mr. K—. I found him suffering with a very aggravated case of facial erysipelas. I applied my usual treatment of carbolized salve locally, and gave the proper internal treatment, but when I saw the case again in twenty-four hours I found symptoms no better. I thought I would try Antiphlogistine. After applying the salve to face, I spread Antiphlogistine on a cloth making a mask that would cover the entire face, directing nurse to change when it dried out.

Next day I found patient much improved. He said "that clay relieved all the burning five minutes after you applied it." I now make it a rule to use Antiphlogistine in treating erysipelas, and I am sure my patients get along faster than they did when treated without it.

I also use Antiphlogistine in pneumonia, and all cases of inflammation of the lung or pleura. Indeed I would hate to have to treat this kind of cases without Antiphlogistine. I will report on one case of an infant where I believe this remedy saved the patient's life.

Jan. 3, 1906, infant, age 18 months. Two days after initial fever, temp. 104 degrees, resp. 48, pulse 120; tongue coated, could

85 - x7

Dominion Medical Monthly

And Ontario Medical Journal

Vol. XXX. TORONTO, MARCH, 1908. No. 3.

Original Articles.

THE PUBLIC HEALTH ACT OF ONTARIO—MEDICAL PRACTITIONERS AND MEDICAL HEALTH OFFICERS.

By L. J. A. Hythenrauch, M.D.,

President of Western Middlesex Medical Association.

Mr. Vice-President:—The history of medicine, consisting of the story of the lives and works of medical practitioners from the time of the early Egyptians down to the present-day writers on medical topics, shows that the efforts of the earliest medical men were devoted to the cure or relief of diseases already established in the human or animal system. The facts which were developed from the study of those conditions, and of all matters which had any direct or indirect bearing on those conditions, gradually evolved the idea of preventing disease instead of curing it after it had become established. To-day we find that preventive medicine occupies the forefront of the fields for investigation which are open to the medical practitioners, while the restoration and alleviation of diseased states occupies a secondary, although very prominent place. What the future may bring forth no man may tell, but it may not be a Utopian dream to hope that with advancing knowledge and its dissemination among and assimilation by the people the prevention of all diseased conditions will be accomplished, and the work of the medical practitioner, as it exists to-day, will be entirely changed. Still, before this fantastic dream may become an accomplished fact, the fundamentals of life itself must be evolved from means which, while perhaps in our possession, are as yet unrevealed to us. For the present we must acknowledge that, although medical thought is greatly in advance of public opinion, our best means of dealing with the great question lies in the direction of gradually educating and enlightening the great mass of humanity, by publishing broadcast the proved results of research, and by devoting more care and attention to the training of life as it exists in the cradle, and even going beyond that period to the states existing before conception is permitted.

While society is modelled on its present basis it is necessary that we use measures which will compel an unwilling and unthinking populace to do those things which they ought to do and to leave undone those things which they ought not to do.

The regulations and acts respecting public health adopted by the various countries and states of the world occupy prominent positions among those measures. Without them we could do comparatively little. Without us they would be almost ineffectual. In carrying on our daily routine we are often glad to fall back on the Public Health Act of Ontario. Under this Act medical practitioners have certain duties to perform, which may be broadly divided between the official and the non-official classes—in rural districts Medical Health Officers and general practitioners.

When any medical practitioner meets with a case which he knows to be smallpox, scarlet fever, diphtheria, typhoid fever or cholera, Sec. 89 of the Act requires him within twenty-four hours to report that case to the local health authorities for the municipality in which the case may be. Schedule "B" of the Act is a by-law in force in each municipality of the Province, and Rules 2 and 3 of Sec. 17 of this schedule require that, in addition to the diseases already named, measles, whooping cough, and other diseases dangerous to the public health must also be reported, and it is not a sufficient notice that the fact that a case or cases of any of those diseases exist in a certain house, but the practitioner must also report the Christian name and surname of patient; the age, the locality (giving street, number of house or lot) where the patient is, name of disease, name of school attended by children from that house, and the measures employed for isolation and disinfection. These particulars should properly be given on forms so printed, gummed, and folded that they may be readily sealed without the use of an envelope, and these forms should be sent by mail (postage one cent), or left at the office of the M. H. O. or of the Secretary of the Local Board. These forms are procurable on request from the M. H. O. or Secretary.

It has been held by the courts that a report by a physician to the M. H. O. by telephone or by post-card, not giving the particulars required by this section, will not relieve the physician from the penalty imposed for default.

Not only are physicians required to report all cases of disease which they *know* to be of an infectious nature and dangerous to the public health, but if they *suspect* that a patient whom they are attending is infected with scarlet fever, the special regulations regarding this disease, issued by the Provincial Board of Health under authority conferred on it by the Act, and which before issue have been confirmed by the Lieutenant-Governor-in-Council, require that they give similar notice to the health authorities. They are not to wait until such a time that there can be no dispute in the diagnosis, but must give the notice within twenty-four hours of the time their suspicions are aroused. Should they suspect that a patient is infected with diphtheria, the regulations do not require the immediate notice, but the physician must isolate the patient at once, until a bacteriological examination of swabs taken from the throat proves the *absence* of that disease. The services of the bacteriologist of the Provincial Board of Health are free to all medical practitioners for the examination of swabs taken from the throats of suspected cases, and in the same way when recovery seems complete. They are also available for the examination of samples of sputum to ascertain whether B. T. is present.

It is not to be supposed that when the attending physician notifies the M. H. O. of a case of contagious disease that he therefore transfers his responsibility for attendance to the M. H. O. Unless properly discharged by the patient, or he notifies the patient that he will no longer attend, he is still the physician in charge. The M. H. O. is only required to have knowledge of the case that he may see that the regulations are carried out.

Should the physician who gives proper notice to the authorities of cases of contagious disease receive compensation therefore from the state or from the municipality? It has been argued that, because physicians received no such compensation, the penal clauses of the Act are of no effect. That under the law of contract a particular service cannot be compelled unless compensation is made for that service. Whether this argument will hold good in law is a question. It may be noted that since the Legislature provided that Division Registrars of vital statistics should receive a fee of twenty cents for each birth, marriage, or death reported to them, the returns of those statistics have become much more complete than was previously the case. Is it not reasonable to assume that were physicians paid a small fee by the municipality for each notice of contagious disease (and for each birth and death) reported by them, there would be no ground for hesitancy on their part in making reports.

In Sections 87, 88, 94, and 95 the relations of M. H. O.'s and the attending physicians are set forth in the matter of granting permission to do certain things or to provide certificates that certain matters have been done. Sec. 87 deals with removal of persons or things from infected houses. The Board, the M. H. O., or the attending physician must consent and prescribe conditions. Sec. 88 deals with removal of sick persons or others from infected houses under similar conditions. Sec. 94 provides that persons recovered from contagious disease, as well as nurses attending them, must not leave the premises until they have a certificate from the M. H. O. or attending physician, that they have observed all necessary precautions to prevent the spread of infection to others. Sec. 95 requires that measures of disinfection, as recommended from time to time by the Provincial Board of Health, the M. H. O., or the attending physician, shall be carried out.

These Sections seem to give the attending physician as much power in the maintenance of quarantine or isolation as is given to Local Boards or to the M. H. O., but it must be noted that in all cases, except the removal of recovered persons or nurses, the local health authorities or the M. H. O. are first mentioned in the wording of the Sections.

A conflict of authority should never arise, although it has arisen in the past, as the regulations covering the different diseases define clearly that in all cases the M. H. O. has the full and deciding authority.

Section 85, sub-section 1. of the Act requires that Local Boards of Health shall isolate patients and placard houses in cases of smallpox and any other contagious disease. Prior to 1893 this Section referred to Boards of Health only, but in that year an amendment to the Act, technically known as 56 Victoria, Ch. 44, Sec. 1, was passed, and was incorporated in Ch. 248 R. S. O., 1897, as sub-section 2, Section 85. This added sub-section reads as follows:—

"The Local Board of Health of any township municipality may by resolution require any physician who is attending a patient suffering from a contagious disease dangerous to the public health to affix or cause to be affixed near the front entrance of the house a placard, to be supplied by the Local Board of Health, and similar to that described in Rule 4 of Sec. 17 of Schedule 'B' of the Act. The placard shall be affixed within 24 hours of the discovery of the case, and shall be so placed that the same can be read by any person approaching the house, but the fixing of such placard shall 'not relieve any such physician of the duty laid upon him by Section 89 of this Act.''

The marginal index to the Second sub-section reads: ''Physician to affix placard to infected houses when ordered by Township Board.''

It will be noted that this sub-section is an amendment passed in 1893, that it affects townships only, and that fixing the placard does not relieve the physician of the duty of prompt notification. Prior to 1893 there was great difficulty in having cases of infectious diseases in rural districts promptly isolated. There were only about 500 M. H. O.'s for the more than 700 municipalities in the Province; the more than 200 vacancies being in townships almost exclusively, and that it was frequently the case that contagious diseases in such municipalities were permitted to go unchecked, and when residents of cities and towns returned from visits to the country they brought back various diseases with them. Even in rural municipalities where M. H. O.'s were appointed, their functions in too many instances were carried out in a merely nominal manner, so that in many cases practically no action under the Act was taken. This amendment was permissive, enabling townships which desired to do so to take advantage of it, both as a saving in expense and as a better expedient than no action at all. Any Local Board of Health in townships may, therefore, pass such a resolution, and it is then the duty of physicians practicing in that municipality to inform themselves thereof and to procure the proper placards. Where no such resolution has been passed, however, physicians are not required to placard, but it must be certainly assumed that few rural M. H. O.'s will object if the attending physician does placard houses where they are attending cases of contagious disease.

Unless an expressed agreement is made between the attending physician and the Local Board or M. H. O., the Local Board or the municipality is not liable for the compensation of the attending physician. The M. H. O., under the regulations for cholera, smallpox, diphtheria, and scarlet fever, is required to see that all necessary care and attention, as well as food and clothing, is provided. Whenever any physician is attending cases of these diseases he should make a definite agreement with the M. H. O. or the Local Board as to his compensation, in all cases where he is in doubt that his pay will be forthcoming.

Any two medical practitioners may be required by warrant of a Local Board to enter in or on any premises or buildings to ascertain the state of health of any person therein. They should carefully examine and understand any such warrant received by them, to see that its terms comply with the wording of the Act, and should they find it necessary to issue any certificate they should be very careful to express it as nearly as possible according to the requirements of the Act, in order to relieve themselves of liability in case action should be taken.

Any medical practitioner may certify to any Local Board that certain premises or things therein require cleansing or disinfection in order to check the spread of infectious disease. Were this power applied more generally by physicians when they meet with filthy premises the community would be much benefited thereby.

Medical Health Officers are appointed by the Council of the municipality in which they are to exercise their function, or may be appointed by the Lieutenant-Governor in case the Council refuses or neglects to appoint after a request has been made by the Provincial Board of Health. He must be a legally qualified medical practitioner. He is appointed at the pleasure of the Council, except when his appointment is made by the Lieutenant-Governor, when his term expires on the first day of February next succeeding. It has been understood in many quarters that the M. H. O. may be dismissed by a mere majority of the Council, or by the simple means of substituting another name in the by-law when the annual appointment of officers are made. Section 34, however, provides that a two-thirds majority of the Council is required to dismiss any M. H. O. for neglect of duty, and it would seem to be an anomaly that any smaller majority will suffice to secure the same object by some other means. It would be interesting were some judicial opinion available on that point.

The compensation of the M. H. O. depends on the amount named as annual salary in the by-law making the appointment. It must be understood that the amount named covers all the duties which the M. H. O. may be called upon to perform under the Act. In 1897 or 1898 Dr. Bryce investigated the amounts received by M. H. O.'s throughout the Province. He received over 150 replies, and the average amount of compensation received by way of salary or by means of fees was under $15.00 each. Either the majority of M. H. O.'s had little or nothing to do at that time or their compensation was grossly inadequate. Where the by-law contains no stated amount as salary, the M. H. O. is entitled to receive from the municipality such reasonable fees for any service rendered as he would receive from any private individual for similar services. He cannot be required to collect from the persons concerned in his action, but should collect from the municipality, allowing that body, which has the power, to collect from the individuals concerned if they see fit. In fact, it may be that any M. H. O. collecting directly from individual persons may be required to refund any amount so collected, should action be brought against them. Unless the small amount usually named as salary for the M. H. O. by rural municipalities is expressly stated in the by-law to be a retaining fee only, and that he shall receive reasonable compensation for all duties performed outside his office, it were better that the by-law should not carry any amount as salary.

A M. H. O. is the most slavish autocrat in existence in this Province to-day. "Autocrat" because his powers are practically unlimited, except by the rising and setting of the sun. "Slavish" because he dare do nothing which will offend the great "Vox Populi," or the Municipal Council, even should the exercise of his powers under the Act be merely nominal. If his action causes the great purse of the tax-payer to yield a few paltry coins, he is blessed far and wide and deep and long. His official contact with individuals causes them to withdraw their patronage from him to his financial loss. Only a diplomat of the first water can fill the office in a manner which will neither cause loud uproars nor private loss. If he succeeds in dissociating in the public mind his action as M. H. O. and his action as a general practitioner he has done something which will greatly help him. He should consider that as M. H. O. and as a general practitioner he possesses a dual personality, and should report as practitioner all cases of contagious disease he meets with to himself as M. H. O. He should also in all cases advise his clientele when he acts as M. H. O.

A good sanitary inspector to whom can be entrusted such routine measures as placarding and disinfection is a great help to a M. H. O., but the Sanitary Inspector must not usurp the duties of the M. H. O.

It may reasonably be deduced from the general terms of the act and regulations that the M. H. O. is the local expert in contagious diseases. His knowledge of them should be as complete as possible, as practically no appeal lies from his decision, especially in diagnosis and in disinfection. As adviser of the Local Board of Health he is also the chief authority on what constitutes dirt, filth and nuisances. His relations to the surrounding general practitioners are those of a consulting practitioner with the additional power that his opinion must be respected and his recommendation followed. He is not permitted to act as attending physician if the Provincial Board of Health has knowledge of it, as he is supposed at all times to maintain himself in such a manner that his services are promptly available for other cases and other contagious diseases which may develop. Unless the attending physician especially requests to be relieved of his position he should in no manner interfere with his work, his methods of medical treatment or the general management of the patient. If the means of isolation employed are satisfactory his duty ends for the time being, when a diagnosis has been made, and the measures called for by the act or by the regulations have been carried out. Until recovery has taken place and the attending physician's services are no longer required, he should let the case severely alone, except to see that all necessaries, including food, nursing, and medical attendance, are provided. Any sums which he may order disbursed on these grounds are either at the expense of the person responsible for the patient's care, or are at his own personal risk, until the municipality reimburses him.

Instance will arise where the M. H. O. must act without having received any notice of contagious disease from the attending physician, and where his intrusion may seem to be impertinent. But a careful exercise of his function and the realization by the attending physician that the M. H. O. must perform his duties whether he desires to do so or not, will prevent those professional complications which may so easily arise. Great tact and forbearance on the part of both are required. Both can, if they desire, assist the other, and render any difference of opinion which may arise a matter of professional secrecy rather than a reason for public dispute. The office of the M. H. O. is difficult enough to fill without having such differences with fellow practitioners. If the M. H. O. gives due regard to the rights and privileges of the attending physician, and the attending physician does all he can by prompt reports of contagious cases, and active support of the M. H. O. in his efforts to prevent the spread of the diseases which do so much to shorten the average duration of human life, they will unite to promote the ideals for which those engaged in the scientific study of medicine are striving.

MENSTRUAL DISORDERS OF YOUNG WOMEN.

By James Burke, M.D., Manitowoc, Wis.

In menstrual disorders of young women and girls the functional troubles they have outside of anatomical displacement and abnormalities, are generally amenable to medical treatment and hygiene. During the pubertal period of a girl's life her surroundings have much to do with her normal development. There are three forces having to do with the proper development of the normal female: First, a natural equilibrium of the physical forces of her being; second, the proper guidance of her budding emotional attributes into being governed by the saving restrictions of the Christian religion; third, the choice of good companions in work and in play. During the last stage of the development of pubertal life, certain fundamental truths and laws of the coming sexual life should be modestly explained to the girls, as well as to the boys. In an analogical way the reproductive laws of plant life and reproduction can be conveniently transferred to the attention of animal life and reproduction; the spores of some plants can be utilized to illustrate diminutive, yet powerful entity—the animal unimpregnated ovum; the differences manifested serve to fix the salient points of the momentous subject. The prime fact, that the sexual organs are for use in adult life only; and for reproductive uses only; and that the transgressor of this wholesome law, always, suffers a penalty corresponding to the crime, and surely so in this life and expectantly so in the world to come. A wholesome restraint of sexual impulses in youth is best developed in the ordinarily unselfish youth by promoting an ardent love for his species; a boy who has been instilled with the proper love for his mother and sisters will seldom defile his neighbor's home. No youth of character, whether boy or girl, will give into the moment of pleasure at the risk of extended suffering to a prospective being who has not sinned. Selfishness is at the bottom of all our sins against ourselves and our species.

To set right badly functionating genital organs of girls and young women, their habits of life must be corrected in the matters of digestion of food and elimination, as these two functions are interrelated and deeply interwoven into the physical fabric. The toilet of the stomach and bowels through the agency of the proper concentrations of salines and the neutralization of the toxins lodged in the walls of the stomach and bowels by the affinitive vegetable congeners is urgently demanded. After this is done and there are symptoms indicating a surplus of incomplete nerve waste, the vegetable congeners—anemonin, hydrastine, caulophyllin, viburnin, helonin, aletrin and hyoscamine—must be given in frequently repeated doses, one or more of these vegetable principles, till the toxins in the generative apparatus are neutralized and have become benevolent excretory products. For dysmenorrhea, aletrin gr. 1-6 every fifteen minutes till relief; sometimes its action is materially assisted if the flow is scanty by anemonin. Anemonin alone, if the toxins present the symptoms of nervousness and depression of spirits, pulse small, frequent and soft, cold hands and feet and tardy scanty flow. Caulophyllin for painful, irritative congestions of the reproductive organs; to relieve pain in the ovaries or mammary glands caused by the presence of a cognate proteid entity in these parts; in chorea and epilepsy caused by the surplus cognate poison permeating the volume of the blood and fluids, thus reaching the central nervous structures; spasmodic muscular pains; hysteria, with symptoms pointing to the presence of an affinitive toxin in the blood, affecting the inhibitory centers of the brain. Viburnin is prompt in relief of anemic amenorrhoea, if the anemia is primarily a result of the presence in the blood of an undue amount of its cognate toxin; by the neutralization of which, by the chemical affinity of the viburnin for the toxin, a benevolent product for excretion is formed; it is also useful for crampy, expulsive pains of the uterus.

Helonin for bearing down pains in connection with sexual ills. Ellingwood considers helonin a good liver remedy. It is useful in limiting toxins whose presence in the blood leads to the formation of insoluble phosphates in the urine, it is useful in nephritis. It is indicated in slimy leucorrhoea, with a sense of downward pressure of the pelvic organs. Hydrastine is an affinitive entity for the neutralization of nerve toxins, which by their chemical aggressiveness, cause a flux of the mucous membranes with which they come in contact.

THE ASEPTIC HOSPITAL FLOOR.

By Charles James Fox, Ph.D., Washington, D.C.

Hospital architects and builders cannot attach too great importance to the subject of floors. In spite of the present day system of thorough ventilation, the isolation of kitchens, laundries and closets, the removal of all dirt of every character, the frequent use of disinfectants and the sterilizing of all instruments, the hospital cannot be sanitary unless it is provided with an aseptic floor. The wooden floor, so common in many of our finest hospitals, is not only quite out of keeping with the sanitary arrangements of the rest of the building, but it is a positive danger, from the fact that it becomes a harbor for micro-organisms and infectious growths of all kinds.

As an organic material, wood supports vegetable life. The cracks between the boards of a floor, owing to the contraction and expansion of the material after it has been laid down, always open, no matter how carefully joined. The open cracks harbor decomposible street filth and food products of all kinds. The wood itself absorbs much of the dirt and filth that falls upon it, and this matter in decomposing becomes the hotbed of micro-organisms and molds of every description. The anaerobic germ, the unseen cause of the insidious "institute smell," soon infects and decays the wood, which thus becomes the most propitious soil for the propagation of disease germs of every kind. As many of these germs live far in between the cracks of the floor and in the wood itself, they cannot be reached by any ordinary process of cleaning. To many of them, the soap and water used in scrubbing the floor supplies the very moisture which is necessary to their evil existence. While such a floor is bad enough in the bath room and kitchen of the modern house, it is almost criminal in a building which is the refuge for persons suffering with every disease known to man, and the home of convalescents, many of whom are making desperate struggles to retain their slight hold on life.

Among other flooring materials we find terrazzo, lead tile, marble, glass, rubber and many styles of monolithic floors. These last are laid in a plastic state, and made up of sawdust, cork, asbestos and other materials, with cement and sand as a base. A perfect floor for a hospital should be non-absorbent, germ-proof, easily kept clean and bright, non-stainable by acids, free from liability to crack, fire-proof, sound-proof, uniform in color and pleasing to the eye. Although the goal of perfection in this respect may not yet have been reached, we shall discuss the articles just mentioned to find out which makes the nearest approach to it, admitting at the start that wood is the farthest removed.

Terrazzo is inexpensive, but there is little else in its favor. The smaller pieces of marble soon work loose, leaving countless small recesses which fill with dirt and are impossible to clean. Lead has sanitary properties, but from the artistic and constructive standpoint it is to be avoided.

Marble as a flooring material has much in its favor, but also has several objections. It is easily scratched and worn by the nails of the shoe, it is somewhat porous, and the fact that it is composed of carbonate of lime exposes it to two further criticisms from the hospital standpoint. If the marble floor is neglected, especially in the angles and corners, it fosters, to a slight degree at all events, the growth of vegetable life. All organisms of infection have now been classed by biologists as vegetable, from the fact that they assimilate their food, particularly the nitrogenous and inorganic portions by absorption from without, instead of enveloping it or taking it into a rudimentary stomach. It is a well known fact that ordinary lichens, if attached to lime stones, exude a corrosive juice which dissolves the stone, leaving a tracing of the plant on the surface, and the small amount of lime so dissolved is taken into the body of the plant. In the same manner, marble, as a carbonate of lime, yields a similar inorganic base, which fosters the growth of vegetable forms, all of which, from the lowest forms to the highest plant life, require lime as a constituent. This character of marble makes it also easily attacked by the weakest acids, so that it is impossible to use upon it the antiseptic solution, that great aid to all cleanliness which is so often applied as an adjunct to scrubbing. The mineral acids are the cheapest and readiest antiseptics at hand, and the fact that they are barred in the case of marble makes that material unfit for use in hospital floors.

Having in mind the glass table of the operating room, many physicians favor glass as a covering for hospital floors. Although glass is harder than marble or slate, it is easily scratched by steel, of which shoe nails are almost invariably made, and in scratching it wears rough instead of smooth. Looking through a microscope, the rough, jagged edge of a scratch in glass is plainly visible, and such tiny recesses soon become the lodging place for dirt, and consequently a bed for bacteria. The well known tendency of glass to chip is likewise a disadvantage.

Rubber makes a good floor covering in some respects, especially if it is laid down in large sheets, which prevents the moisture from sinking through the floor, where the rubber covering prevents it from evaporating, and causes it to decay the wood. But in warm rooms rubber has a disagreeable odor, and it is often very unsanitary, from the fact that it merely covers up the dirt which works its way under, if not through it. The rubber tile cannot be too severely condemned, first, because the many joints, which unlike those between the clay tiles, are not ''grouted,'' that is, filled with hard cement, harbor dirt of all kinds and suck the moisture into the floor below.

All forms of monolithic floors are open to the criticism that as they are composed of several materials they soon disintegrate and present a worm eaten appearance. They also show stains. Portland cement as flooring is extremely rough to the impact of the foot and wears off the shoe leather very rapidly. It is quite porous and the surface pores become filled with small bits of shoe leather and other dirt, and become in consequence a breeding place for bacterial life. The Portland cement floor soon wears rough and looks unsightly. Although a silicate of lime, it is readily attacked by diluted acids as is marble.

After examining all of the proposed floor materials it must be admitted that the best so far discovered is the floor of baked tile, which consists principally of silicate of alumina and is an inorganic substance which attains a greater hardness than almost any natural stone. It is so hard that a sharp steel point cannot scratch it, but merely makes a mark on it like a lead pencil. As a silicate of alumina, it cannot be attached by any acid, with the exception of hydrofluoric, which there is no occasion to use. As vegetable growths require nothing in the way of clay for their development, the clay tile is absolutely sterile as far as they are concerned. There has been much said about the cracks, or joints between the tile, but these are completely filled with pure cement, grouted in hard, so that the joint is but a joint in appearance and not in the sense of the open or unfilled joints of the wooden or rubber tile floor.

Baked clay tiles, even in the joints between them, are non-absorbent, germ-proof, acid-proof, fire-proof, impossible to stain, easy to keep clean, free from cracking, pleasing to the eye and very durable. While the ''perfect hospital floor'' may still be a thing of the future, the nearest approach to this goal of perfection has been reached by the clay tile, the sanitary artistic and durable qualities of which are as yet unsurpassed by any flooring material.

THE USE OF LYSOL AS AN APPLICATION IN SMALLPOX

By Heber C. Jamieson, M.B., Glencoe, Ont.

The prevention of pitting in smallpox has long been a matter of paramount importance to the profession, and many indeed have been the measures advocated for this purpose. The red-light treatment advanced by Finsen, puncture of the vesicles, the exhibition of calcium sulphide and other drugs whose names are legion, are all directed to the same end—that of preventing the deeper layers of the integument from becoming involved. The warding off of suppuration is aimed at. Whatever method of treatment will accomplish this is treatment par excellence.

Having used Lysol in solutions of from 1—2 per cent., as an application in a number of cases—mild discrete cases, I must admit—it was found that suppuration was apparently prevented in some cases and checked in others. I say apparently, for I am not prepared to say that these cases were not of the abortive type that have been so frequently seen in the epidemics of the past few years.

However, the rapidity with which the pustules dried up and the scabs dropped off leads one to believe that Lysol solution is one of the best applications that can perhaps be made.

The first result of the treatment noticed is a drying up of the pustule and the formation of a darker scab than is usual. The scab is thrown off much quicker than that which is untreated, or even treated with 5 per cent. carbolic acid ointment. There is an apparent abortion of suppuration.

As Lysol is five times stronger than carbolic acid and eight times less poisonous, we have a very potent agent, and one worthy of a fair trial in this condition.

ACUTE NEPHRITIS.

By W. C. Abbott, M.D., Chicago, Ill.

Acute nephritis is an intense inflammation, particularly affecting the epithelium of the uriniferous tubules and the glomeruli. The anatomist makes out three varieties as affecting the tubules, the glomeruli, and the interstitial connective tissue. But in practice this is impossible, as they could not be distinguished, and to a certain extent all three are usually present in the same case.

The causation and in clinical history, however, this is the acute form of desquamative tubular nephritis.

The renal tissues are found to be swollen, the capsule loose. In the early stages the tissues are deep red, later they become paler; the malpighian tufts retain the redness, giving a mottled appearance on section. The lumen of the tubules is obstructed by loosened and degenerated epithelium, blood corpuscles and serum albumin. The vessels are dilated and the walls in a state of degeneration while desquamation of the epithelium occurs. The interstitial tissue is infiltrated with leucocytes in abundance.

The attack commences with intense hyperemia, followed by inflammatory extravasation containing red blood-cells. The circulation is impeded and nutrition suffers. The epithelium of the glomeruli is swollen, and fatty degeneration follows, the convoluted tubules are engorged with disintegrated epithelium and the products of inflammation. This may seriously interfere with the excretion of urine, which may be entirely stopped for a period, and the toxic products which should pass out of the body in this way are retained in the circulation.

The causes of acute desquamative nephritis are exposure to cold and wet; pregnancy; the ingestion of such poisonous drugs as seriously irritate the structure of the kidneys, such as cantharides, turpentine, copaiba; the excessive ingestion of alcohol; extensive burns or dermatitis, and acute infectious diseases, scarlatina causing more cases than all other causes combined. Sometimes the disease arises without any apparent cause. It is possible here that there has been a toxemia arising from some unrecognized infection, or even from the absorption into the blood of particularly toxic elements from retained feces, whose toxicity is of that nature and intensity as to arouse this acute inflammation in passing through the delicate structures of the kidneys.

The affection may commence with a chill, or with a rise of temperature; or the first symptoms manifested may be puffiness of the face, with headache, nausea and vomiting. The dropsy rapidly extends until the entire body may be swollen to the full capacity of the skin to retain it. Hematic depravation is evidenced also, and anemia rapidly supervenes. Pain in the lumbar region is common. Anorexia is certain with disorders of digestion and obstinate headache with vertigo. Nausea and constipation may be premonitions of uremia. The urine is scanty or may be completely suppressed; it is smoky, or high colored, with very high specific gravity, and is heavily loaded with albumin and blood corpuscles, and a variety of tube casts. The excretion of urinary solids is notably decreased. The skin is apt to be dry and harsh.

If effusion takes place in the large serous cavities and the aortic second sound is augmented, the prognosis should be guarded. Otherwise it depends on the capacity of the kidneys to keep up eliminative action, and that of the skin and bowels to supplement this.

The first indication of the disease in pregnancy may be the development of convulsions, and the other evidences of uremia. In most cases the beginning symptoms are comparatively slight, when compared with the conditions revealed by examination of the urine. The absence of fatty casts distinguishes this from an acute or subacute exacerbation of a previously existing chronic desquamative nephritis.

The prognosis should always be guarded, notwithstanding the fact that these cases generally recover, and without leaving chronic nephritis as a sequence. Death may occur, however, from exhaustion, from uremia, or from edema of the lungs. The average course of the malady is one month, but it may be shorter or longer.

Our first duty is to prevent death occurring from the accumulation of toxins in the blood. For this reason we must beware of attempting to stimulate the action of the kidneys, while in this condition; although such stimulation occasionally proves effective, the debris obstructing the uriniferous tubules being washed out by the accumulation of urine behind them. Such practice is perilous in the extreme; and while sometimes successful, may on the other hand increase the hyperemia of the kidneys to such an extent as to cause death.

It is better to supplement the action of the kidneys by derivation from the skin and the bowels. Derivation from the skin by pilocarpine is highly effective. It must be remembered that in some conditions this agent induces hyperemia and edema of the lungs; and if the slightest tendency to this condition exists it should be avoided. Otherwise, 1-6 grain may be injected hypodermically, and repeated hourly until profuse diaphoresis occurs. This is especially valuable from the fact that the perspiration thus induced carries off one-half as much toxic matter as would be excreted with an equal quantity of normal urine. Ordinary perspiration only carries one-tenth as much solid matter as urine.

A safer and better route of derivation is found in the bowels. Empty the rectum and colon by enemas, then inject into the colon half a pint of saturated solution of table salt, or two to four ounces of pure water-free glycerin. Either of these will induce by osmosis a profuse transudation of serum into the bowels, carrying with it large quantities of toxic matter. We thus cut off the absorption of toxins from the large bowel into the blood, and at the same time relieve the patient by ridding the blood of great quantities of the toxins already circulating in it. These injections may be given two or three times a day. We may also get up some action of the skin by hot or cold packs, or other hydropathic measures. Some relief may also be experienced by puncturing the skin with a needle in very many places, or even by making incisions. These, however, should be made with the utmost care, as infection is almost certain to occur under ordinary conditions, and an erysipelatous affection result, which seriously complicates the case.

Nutrition is to be kept up in the meanwhile by the administration of perfectly skimmed milk, two to four ounces being administered every four hours. No other nutriment need be given; as no other is likely to be utilized. Experience has shown that this is the least injurious, and the most likely to nourish the patient, of any diet that can be given. We make one exception in favor of pure, freshly-pressed fruit juices, which may also be administered to the amount of eight ounces in twenty-four hours. Great debility may require a strong cup of coffee two or three times a day. Alcohol should not be administered under any circumstances, in any state whatever, even to a patient who has been accustomed to the daily use of alcoholic beverages.

It is doubtful if any remedies can be absorbed from the skin, but derivation over the kidneys is undoubtedly of benefit. This we believe to be best accomplished by the use of mustard poultices, keeping the skin continually red, and thereby abstracting from the underlying tissues a certain amount of blood. The effect of this derivation certainly reaches the kidneys, and the hyperemia is thereby lessened to a material extent; and even a little action of this kind may suffice to turn the scale in favor of the patient. It must be remembered that this disease is not of long duration, and if we can keep the patient alive for a certain period, nature will put an end to the disorder.

Vascular tension may be relaxed by the exhibition of veratrine or gelseminine; of either a minimum dose may be given at frequent intervals until the desired effect has been secured (gr. 1-134 every half hour or hour to effect). Not all cases require these remedies, as the arterial tension may be low throughout. They are safe remedies, however, because the relaxation they produce enhances their own elimination, and they carry out with them large amounts of toxin. Remedies which increase vascular tension should rarely be employed. Strychnine and digitalin, if administered at all, should only be given under the pressure of necessity. Caffeine in the form of hot coffee is the best cardiac stimulant for such cases as need such medication. If the heart absolutely requires strengthening in addition to this, it is better to use sparteine or strophanthin, which will strengthen this organ without increasing vascular tension. Sparteine probably lessens vascular tension, and hence is useful in addition to its heart-tonic properties.

Digitoxin and apocynin are probably the most perilous drugs that can be given in this condition, excepting turpentine and its congeners. In the declining stages arbutin, one to five grains per diem, in divided doses, is of undoubted benefit in restoring the diseased mucous tissues to their normal conditions. Great care should be taken, not only during the course of the malady, but in the convalescent period, to avoid the ingestion of all substances capable of irritating the delicate structures of the kidneys, such as condiments, alcohol, and all foods containing the irritant volatile oils, like water cress, and so forth; and also those containing oxalic acid, such as tomatoes.

While chronic nephritis rarely follows an acute attack, it does so occasionally, consequently the patient should be guarded against this possible termination of the case. He should wear wool next to the skin, and be carefully protected from cold and dampness. Sedulous attention must be paid to the bowels, and constipation never permitted to occur, or to remain.

During the earlier years of the writer's practice he made much use of a prescription containing sodium acetate, chloroform and benzoic acid; using it in acute as well as chronic cases of desquamative nephritis. It is probable that the acetate of soda was of little if any benefit. Whatever value exists in chloroform, given in minute well-diluted doses, can probably be better obtained from glonoin, and if vascular tension is too high this remedy may be administered with benefit (gr. 1-250 every ten to thirty minutes).

Benzoic acid resembles arbutin in its soothing effects upon the irritated mucosa of the urinary tract, and may be given in doses of one to two grains, well diluted, each twenty-four hours. No special benefit arises from increasing this moderate dose.

Derivation is sometimes secured by the administration of croton oil or elaterin; but this is much more painful, less efficient and more debilitating, than the enemas of saturated salt solution. The efficacy of these is at once apparent when they are once employed. Exosmosis is an absolute certainty when a saturated salt solution is thrown into the rectum; and when the vessels are engorged, as in the disease under consideration, the result will surprise those unaccustomed to the use of this remedy.

We would not hesitate to take blood locally, by leaches or cups applied over the back; but frankly, we believe the benefit is not nearly so great as that from the salt enemas, while the loss of strength occasioned by bleeding is more decided.

In conclusion we will state our conviction that this, as well as other sequences of infectious maladies, is largely preventable by compelling the nurses to afford the freest possible ventilation to the sick chamber, and absolutely preventing fecal retention by keeping the bowels clear and clean throughout the malady. The writer made it a rule to ensure constant and copious ventilation during scarlet fever attacks, and never had a nephritis sequence where his orders in this respect were obeyed. On the contrary, one of the worst cases of acute nephritis he ever met, followed a scarlet fever where the physician sealed the sickroom as nearly hermetically as he was able, even stopping the keyhole!

Selected Article.

VIVISECTION.

By Andrew MacPhail, B.A., M.D., Montreal.

(Continued from last issue.)

It is an interesting exercise tracing the genesis and progress of the falsehoods in which these publications abound, and one further example is selected because it began near home. At the Washington meeting of the National Congress on tuberculosis, held in 1906, Dr. Knopf alluded to the use of morphine. It was reported that he had advised physicians to "kill their dying consumptives quickly and painlessly." The Chairman of the Section in which the remark is alleged to have been made categorically denied the statement (*British Medical Journal,* June 8, 1907). Yet *Le Scalpel,* September 29, repeats the calumny and affirms that the practice won the approval of "une gross majorité dans l'association médicale de New York." The fiction is repeated in *Le Progres Médicale* by Dr. Noir, who gives thanks that his countrymen are not so wicked as those Americans.

When a clamor arises in England about any subject whatever, the practice is to appoint a Royal Commission. These Commissions not infrequently sit for seven years if the excitement does not subside in the meantime. That is the English way of dealing with ethical questions. They will take formal evidence against the vice of lying and submit an impartial report upon it. The discussion about vivisection became so violent during the past few years that it was felt that the time had come for a Royal Commission, and accordingly one was constituted September 17, 1906. This Commission met for the first time on October 31, 1906. The first Report, containing a transcript of evidence, was issued January 26, 1907; the second on April 15, and the third on October 3. It is impossible to say when the Commission will rise and present its final Report; the last commission began its sittings on July 5, 1875, completed them on December 20, and issued its final Report on January 8, 1876.

The personnel of the present Commission is a fair compromise between men of extreme views. Sir William Church, Sir John

Macfadyean, and Dr. W. H. Gaskell represent experimental medicine. Dr. George Wilson, in 1899, as President of a Section of the British Medical Association, made a vehement attack upon Pasteur and the newer method of treatment. Colonel Lockwood and Mr. Tompkinson have been openly allied with the anti-vivisectionists. The remaining four members are more or less official persons, who may be imagined to have no preconceived ideas upon the subject.

This compromise did not suit the agitators. They protested that they should have a "scientific representative, "an expert anti-vivisector," upon the Commission; and when it was not constituted to meet their views Mr. Stephen Coleridge protested that they did not care what scientific men said; their objections to vivisection were based upon "moral grounds." In an article in the *Contemporary Review*, December, 1906, he declares that the three anti-vivisectionist Societies, the National, the London, and the British Union, comprising in their membership, as he says, 95 per cent. of all the persons belonging to anti-vivisectionist societies, have decided to have nothing to do with the Commission. Its proceedings, he says, will be "a pompous travesty of justice"—and yet four of the members of the Commission were recommended to the Home Secretary for appointment by these Societies. "As well place Bill Sykes in the Chair to enquire into the doings of the burglary profession," was the comment of one of their leaders upon the constitution of the Commission. The various Societies could not agree among themselves, and then they fell to recriminating one another because they could not agree. The difficulty which the Home Secretary found was in getting a man of sufficient common sense not to make the doings of the Commission ridiculous.

Three volumes of the evidence are now before us and reading them is a dreary labor. No one will be convinced who is not already convinced. The experimenters are satisfied that good comes of their work. They inflict no more pain than they can help. They are not much concerned with the "right or the wrong" of using animals for food or for any other convenient purpose. The question in reality is an ethical one, and they know that morality is an affair for the individual and not for a Royal Commission.

A general view of the evidence as published to date in those three volumes shows that the case in favor of research has been well presented. The Inspectors testified that the Act of 1876 was well administered; that it afforded ample protection for animals, even if it hampered the investigators; and that there were no abuses to be checked by further enactments or inspection.

Mr. W. P. Byrne, of the Home Office, to whom has been entrusted the administration of the Act of 1876, testified that during thirty years no legal proceedings were required, and that, in all that time, there had been only sixty contraventions of the law, "most of them trifling." Of these cases "a substantial number" were due curiously enough to a desire on the part of the operator to save the animal from pain by giving an anæsthetic where none was demanded under the Act.

Professor Thane, who has been Inspector for Great Britain since 1868, had not found any irregularities. Anæsthesia and asepsis were carried out as strictly as in a hospital. He had not met with any deliberate opposition or willful disregard of the Act.

Sir James Russell, Inspector for Scotland, affirms that the Act was worked with more strictness than any other Act with which he was acquainted, and he had never seen any indication of pain so acute as an attack of colic, nor any callousness to suffering on the part of operators or students.

Sir Thornley Stoker, speaking for Ireland, for which he was Inspector since 1879, observed that the Act in Ireland was carefully administered and properly observed. He gave it as his opinion that experiments should not be performed for purpose of demonstration; but in this he was controverted by Professor Thane.

Professor A. R. Cushny, of University College, London, formerly of the University of Michigan, gave evidence upon the value of the experimental method in pharmacology. He cited a list of the newer drugs whose action has been ascertained by experiments upon animals. Amongst them are sulphonal, chlorotone, veronal; the antipyretics, antipyrin, acetanilid, phenacetin; the anæsthetics, cocaine, eucain, stovain; the extracts of glands, such as adrenalin; the antiseptics; and disinfectants. Dr. Cushny assigned proper value to the standardizing of drugs and the detection of poisons. Finally he testified that he had never seen any cruelty practiced in the laboratories in England where there are legal restrictions, or in the United States where there are none.

Lord Rayleigh, President of the Royal Society, presented a statement, drawn up by the Council of that learned body, in which was set forth the indebtedness of society to experimental medicine. Dr. Frederick Taylor, representing the Fellows of the College of Physicians and practicing physicians, recounted the benefits which medicine had derived from bacteriology which was bound up with experiments upon animals.

Mr. Stewart Stockman, chief veterinary adviser of the Board of Agriculture, related in detail the progress of the knowledge of the diseases of animals. Rinderpest in four years in England destroyed cattle to the value of six million dollars. It was now under control. He also cited what experiment had done towards mastering tetanus black-water, swine erysipelas, horse-sickness, red-water, and blue tongue.

Professor E. H. Starling spoke for the physiologists. The whole fabric of physiology, the foundation of medicine, was the result of experiments on animals, and the prohibition of these experiments would result in a total cessation of progress. He mentioned in detail the various discoveries in physiology and the methods of treatment which followed.

In the third Report of the Commission, issued on October 3, 1907, Sir Lauder Brunton's evidence is reported. It is practically a survey of modern medicine, and he shows that its progress is a result of experiment upon animals. Incidentally he mentions that the "baking alive" of animals was done at 106 degrees F., a temperature often experienced in the streets of New York.

The evidence presented by the opponents of vivisection and available up to the present date, 8th November, 1907, was given by Mrs. K. Cook, Miss C. Lind-af-Hageby, and Dr. Herbert Snow. It does not lend itself to the process of summary, because there is nothing to summarize. There are no facts. It is a reiteration of loose statement which not even their friends in the Commission could accept. Miss Lind-af-Hageby is the joint author with Miss Schartau of the "Shambles of Science," a book which the Courts ordered to be withdrawn from circulation. Her evidence occupies 41 double-column pages of small print in the Blue Books, and is for the most part a repetition of the contents of her book. Her answers were so absurd that one of the members declined to question her further "in mercy to the rest of the Commission."

From all the evidence it would appear that cruelty is not practiced in England where strict legal enactments control the practice of vivisection. Competent observers, workers in various laboratories, testify that no cruelty is practiced in the United States or in Canada, where there are no restrictions, save the conscience of the operator and public opinion as represented in colleagues and students. I am not insensible to the educative value of any crusade against cruelty, and I do not deny that the anti-vivisectionists have done something towards the quickening of the scientific conscience.

Surveying the field of experimental medicine, we are well content. We have reduced the mortality of diphtheria from 36 per cent. to 6 per cent. We have wrested the secret of malaria, yellow fever, typhoid, plague, meningitis, sleeping sickness, and tuberculosis. Knowledge of disease and of its treatment has progressed by slow and orderly movement from truth to truth. The borders of medicine are enlarging and animals will be called upon in increasing numbers to serve humanity. Last year there were in Great Britain 363 operators who performed 35,429 experiments; these numbers bear a ratio to the increase in knowledge.

Scientists in the United States have done their work without restrictions and without cruelty. Scientists in England have borne these restrictions with good nature and good faith. Indeed it was testified before the Commission that one experimenter sought permission from the Home Office to engage in ''feeding experiments'' in which kittens were to be fed upon cows' milk.

And yet the anti-vivisectors will not be satisfied until it is forbidden to prick a mouse with a needle; even though the object be to master the pestilence which stalks in the darkness of ignorance. They admit that medicine, as we know it, with its incalculable benefits, is due to experiments upon animals; yet they contend that these experiments are ''wrong.'' The issue now is clear. It is for the sensible people who make the laws to decide.

Proceedings of Societies.

THE SIXTEENTH INTERNATIONAL MEDICAL CONGRESS.

The Sixteenth International Medical Congress will be held in Budapest, the Capital of Hungary, under the patronage of His Imperial and Apostolic Royal Majesty the King of Hungary (Emperor of Austria), from the 29th of August to the 4th of September inclusive, 1909.

It will be the endeavor to establish a strong Canadian National Committee to represent Canadian Medicine at this Conference, and the Executive Committee of the Canadian Medical Association has re-appointed Dr. W. H. B. Aikins, of Toronto, to act as Secretary of the Canadian National Committee, which appointment has been confirmed by the Executive Committee of the Congress at Budapest. Dr. McPhedran, who was Chairman of the Canadian Committee for the International Medical Congress held at Lisbon in 1906, will be associated in endeavoring to secure the formation of a strong and representative Committee. Any member of the profession in Canada desiring information, may communicate with either of the above named.

Matters of interest pertaining to the Congress will be published from time to time.

The members of the Congress will be (a) certified doctors who apply and have paid membership fees; (b) experts having paid membership fees with recommendations from the Canadian National Committee to the Executive Committee of the International Medical Congress, will be admitted as members. The membership fee is $5.00.

The members will receive the first volume of the transactions of the Congress, and also a volume on the work of the department of their choice.

The following is taken from the advance announcement received from Budapest,—

The Congress is divided into the following departments:

Anatomy, Embryology, Histology.

Histology.

General and experimental Pathology.

Microbiology (Bacteriology), Pathological anatomy.

Therapeutics (Pharmacology, Physical hygiene, Balneology).

Internal Medicines.
Chirurgy.
Obstetrics and Gynæcology.
Opthalmology.
Diseases of Children.
Diseases of the Nervous System.
Psychiatrics.
Dermatology and Syphilography.
Ourology.
Laryngology.
Otology.
Stomatology (Dental and oral surgery).
Hygiene and doctrine of Immunity.
Juridicial medicine.
Military and naval surgery.
Navigation medicines and tropical diseases.

The Congress will arrange two festival sessions, an inaugural and a closing one, at which none can take the platform except those summoned by the managing committee or certain representatives of the state after the announcements, and customary speeches have been made. During the inaugural session, the managing committee will proclaim, in order of succession, the names of the honorary presidents, and in the closing session the congress-place.

The subjects of lectures of reports and the lecturers to be selected by the departments, the programme of reports will be published at latest by the 31st December, 1908.

By the 31st January, 1909, reporters have to hand the manuscript of their reports into the office of the Congress; and the members of the representative departments receive them in print, sent to their abodes by the 31st July.

The corrections will be submitted to the care of the secretaryship. A legible hand is entreated. The term for the announcement of optional subjects is fixed for the 30th April, 1909.

Lectures announced after the above date will only be included in the order of the day, in one case only, viz., after those announced in due time have been negotiated and if time admits.

Two or more departments may hold general sessions, provided their programme be published at latest by the 31st December, 1908.

Members are permitted to co-operate in the departments of others besides those of their own choice.

Only such of the discretionally announced lectures will be published, whose authors have delivered them personally at the Congress and the copies of which the Executive Committee, in accordance with the decision of the presidency of the department, have determined.

The time allowed for the statement of reports must, in no case, exceed 20 minutes, for the other deliveries 15 minutes; for the discussions, for the former 10, for the latter 5 minutes. The answers of lecturers may be extended to 10 minutes.

The manuscripts of the speeches made on the occasion of both festival sessions are to be handed over to the secretary-general on the day of the sitting, the manuscript of the lectures and discussions delivered in the departments, are likewise to be handed to the managing secretary of the representative departments on the day of the sitting, having reference to the lecture or the discussion.

The office of the Congress, in its international intercourse, will avail itself of the French, German and English languages. At the festival and general sittings the above named languages may be used; in the departmental sittings, however, other languages are available; provided one of the members present communicates within the time fixed for the duration of the festival, the purport of the lecture or discussion in one of the above named languages.

The whole of the correspondence is to be directed to the office of the Congress. Office of the Sixteenth International Medical Congress, Budapest, VIII., Esterhazy-Uteza 7.

On the envelopes of letters having reference to the scientific energies of the departments, the department must be written, to which the delivery or enquiry applies; letters of this description the secretaryship at once has forwarded to the president of the respective department.

The term for forwarding applications with reference to the organization of the Congress expires on the 31st December, 1908.

The programme of social gatherings, of making known railway favors, of accommodation and of excursions will be published by the 30th April, 1909.

SUGGESTIVE PROGRAMME FOR AMERICAN MEDICAL EDITORS' ASSOCIATION.

Suggestive programme for the meetings of the American Medical Editors' Association, to be held in Chicago, Saturday, May 30th and Monday, June 1st, 1908.

Beginning with office work, let us consider:—Office Routine, both journalistic and editorial: Methods of subscription collections. Methods of keeping subscription accounts. Correspondence with doctors, both business and scientific. Examination and revising of manuscripts. Exchanges: Of what value? How much time do you spend with them? Office interviews with calling doctors.

In the purely editorial department, let us consider: Source of Inspiration for Editorials. The Scientific Editorial. The Non-scientific, or Utilitarian Editorial. Planning and Soliciting Scientific Contributions. Special Articles. Seasonable Subjects. Value of Medical Society Proceedings. Specialists in General Medical Literature. Sectarianism in Medical Journalism. Medical Book Reviews. Clinical Reports, Queries and Replies, etc. Translations and Abstracts. Medical News, in Weeklies, in Monthlies. How do you keep Commercialism out of the Reading Matter?

In the Publishing Department of Medical Journalism, let us consider: Advertising rates. Reports of circulation. Basis of credit for advertising. Percentage of losses. Ethical standard of acceptability for advertisements. Relations with the printer. Purchase of paper. Cost of production.

Dr. Jos. MacDonald, Jr., of the American Journal of Surgery, will open this general subject with a paper on "The Agent, the Advertiser and the Publisher."

ONTARIO MEDICAL ASSOCIATION.

The 28th Annual Meeting of the Ontario Medical Association will be held in Hamilton under the persidency of Dr. Ingersoll Olmsted on the 26th, 27th, and 28th of May next.

The addresses in Medicine and Surgery will be delivered by Dr. Charles Stockton and Dr. Charles Scudder, respectively. The former, who is well known to us as the American editor of Nothnagel's work on the Diseases of the Stomach, is Professor of the Principles and Practise of Medicine in the University of Buffalo. The latter is Surgeon to the Massachusetts General Hospital, and has distinguished himself as the author of a work upon Fractures, which has been received with so much favor that six editions have appeared within eight years.

The Profession generally is invited to attend. Any regular practitioner of Medicine in good standing may become a member. Come and help make the Hamilton meeting a success. The annual fee is but two dollars.

PROVISIONAL PROGRAMME.

The Committees on Papers and on Arrangements have pleasure in submitting the following programme for its twenty-eighth annual meeting, to be held at Hamilton, May 26th, 27th, and 28th in the College of Music Building, James St. South. The present arrangement of papers will not necessarily be adhered to, as a new grouping of subjects may be deemed advisable before the publication of the final programme. We believe that no programme has been issued in the history of the Association more replete with interest from the first item to the last than this promises to be. Every practitioner in the Province can well afford to set aside these days for attendance at Hamilton.

The sectional plan of meetings has been adopted, and will be enlarged if the papers will permit of doing so. Sections will meet in the mornings, and the afternoons are to be devoted to the addresses and subjects of general interest. The evenings have been set aside for entertainment.

TUESDAY, MAY 26TH.

Surgical Section—

L. W. Cockburn, Hamilton—"Treatment of Acromio-Clavicular Dislocation."

H. A. Bruce, Toronto—(Paper title to be sent.)

N. A. Powell, Toronto—(Paper title to be sent.)

H. B. Lyle, Surgeon to St. Luke's Hospital, New York—"The Hyperæmic Treatment."

Clinic and Luncheon at the General Hospital.

Medical Section—

W. L. Silcox, Hamilton—"Opsonins." Discussion to be led by W. Gibson, Kingston.

W. Goldie, Toronto—(Title to be sent.)

Adam H. Wright, Toronto—(Title to be sent.)

J. Sheahan, St. Catharines—(Title to be sent.)

Benson Cohoe, Assistant Physician Roosevelt Hospital, New York.

Clinic and Luncheon at the General Hospital.

General Session—2.15 P. M.

President's Address.

Symposium: Arterio-sclerosis—

Pathology of—J. J. Mackenzie, Toronto.

Cerebral Manifestations—Colin K. Russell, Assistant in Medicine, McGill University.

Aortic Arch Manifestations—Thos. McCrae, Associate Professor of Medicine, Johns Hopkins, Baltimore.
Muscle Manifestations—Harry C. Buswell, Associate Professor of Medicine, University of Buffalo.
Visceral Manifestations—J. H. Bauer, Hamilton.
Treatment—H. A. McCallum, London.

Evening—Smoking concert at the Yacht Club, Burlington Beach.

WEDNESDAY, MAY 27TH.

Surgical Section—9 A. M.

J. P. Morton, Hamilton—(Title to be sent.)
F. N. G. Starr, Toronto—(Title to be sent.)
Edwin Seaborn, London—(Title to be sent.)
G. T. McKeough, Chatham—"Mechanical Ileus, Operation, Recovery, Remarks on the Treatment."
W. E. Olmsted, Niagara Falls—"Ulcer of the Stomach."
E. E. King, Toronto—(Title to be sent.)

Medical Section—

G. S. Glassco, Hamilton—(Title to be sent.)
J. R. Stanley, St. Mary's—(Title to be sent.)
R. J. Dwyer, Toronto—(Title to be sent.)
D. Dunton, Paris—(Title to be sent.)
F. Fenton, Toronto—(Title to be sent.)
George Hodge, London—"The Treatment of Pneumonia."
K. C. McIlwraith, Toronto—(Title to be sent.)
R. Ferguson, London—(Title to be sent.)

General Session—Afternoon.

Address in Surgery—Charles L. Scudder, Surgeon to the Massachusetts General Hospital.
G. E. Armstrong, Professor of Surgery, McGill University.
V. P. Gibney, Professor of Orthopedic Surgery, College of Physicians and Surgeons, New York.

Evening Session—Dinner at the Royal Hotel.

THURSDAY, MAY 28TH.

Surgical Section—

H. Sinclair, Walkerton—(Title to be sent.)
S. H. McCoy, St. Catharines—(Title to be sent.)
A. E. Garrow, Montreal—"Duodenal Ulcer."
H. Sanderson, Detroit—(Title to be sent.)
D. E. Mundell, Kingston—"Pancreatic Cyst."

Medical Section—

D. King Smith, Toronto—(Title to be sent.)
J. T. Fotheringham, Toronto—"Malignant Endocarditis.".
A. T. Gordon, Toronto—(Title to be sent.)
Campbell Howard, Assistant in Medicine, McGill University.
G. R. Cruickshank, Windsor—"The Treatment of Appendicitis."
J. C. Meakins, Pathologist to the Presbyterian Hospital, New York—"Rheumatism."

General Session—Afternoon.

Address in Medicine—Charles G. Stockton, Professor of Medicine, University of Buffalo.
L. G. Cole, Radiographer to the Roosevelt Hospital, New York—Illustrated Lecture.
C. K. Clarke, Toronto—"Psychiatry in Relation to General Medicine."

Dominion Medical Monthly

And Ontario Medical Journal

EDITORS:

GRAHAM CHAMBERS, B.A., M.B. WALTER McKEOWN, B.A., M.D.

ASSOCIATE EDITOR:

T. B. RICHARDSON, M.D.

MANAGING EDITOR:

GEORGE ELLIOTT, M.D.

Published on the 15th of each month. Address all Communications and make all Cheques, Post Office Orders and Postal Notes payable to the Publisher, GEORGE ELLIOTT, 203 Beverley St., Toronto, Canada

VOL. XXX. TORONTO, MARCH, 1908. NO. 3.

COMMENT FROM MONTH TO MONTH.

The Re-organization of the Visiting Staff of the Toronto General Hospital article, the responsibility for which rests alone on the managing editor, as the editors or the associate editor knew nothing about it whatever, was not intended to give offence to anyone. The language used has been characterized as altogether too strenuous. The article desired to set forth that the Hospital Board had been unfair to some who had served it faithfully. It said nothing about the capability of the new staff; it was not intended to. It condemned wire-pulling. As it has been intimated there was none, then it was an error to refer to wire-pulling in the same article. It cannot be offensive to state wire-pulling is distasteful; nor to assert that, in the opinion of the writer of the article, every doctor licensed to practice should not be debarred from doing same in hospitals receiving governmental and municipal grants.

A Commission on Tuberculosis in Ontario is advocated by Dr. Forbes Godfrey, M. L. A. According to Dr. Godfrey a commission of three persons should be appointed to investigate the conditions in the Province and report as to the advisability of establishing a Provincial Sanatorium. We fully agree with him as to the need of such commission. In fact four years ago in March, 1904, we advocated this commission, pointing out at that time

"That matters in connection with the prevention and treatment of tuberculosis are practically in chaos in this Province of Ontario."

From the newspaper reports of the recent meeting of the Ontario Board of Health, we learn that there have been 36,700 deaths in Ontario from tuberculosis in the last decade, set out as follows: 1897, 3,164; 1898, 3,291; 1899, 3,405; 1900, 3,484; 1901, 3,284; 1902, 2,694; 1903, 2,723; 1904, 2,877; 1905, 2,667; 1906, 2,911. These statistics show that in the last pentad there has been a satisfactory and encouraging decrease in the death roll. This must be due to the education of the public and the good work being done by existing sanatoria.

But why so single out tuberculosis? What about cancer, pneumonia, la grippe, and all preventable diseases? Why concentrate fighting forces all along one line? Unless, indeed, it may be expert tactics to do away with one disease and then tackle another, and so on until all are done to death.

The strange thing about fighting preventable diseases is that the most strenuous work is done by the doctor. The public cannot see eye to eye with his disinterestedness. The doctors or the medical associations or the medical press, point out the way long before the laity lose their "lackadaisy."

The remedy to medical men seems quite clear. There should be a directing hand in fighting all sorts of diseases, a hand untrammelled by political influences of any sort or description. In fact, in the government of every province there should be a Minister of Public Health, just as well as there is a Minister of Agriculture or of Finance.

Surely the former takes precedence over the latter. It would in individual life. Why not in state life? How can any government better concern itself than by first looking after and conserving the health of its constituent parts? For without a strong, virile, robust manhood, we cannot expect much towards nationality.

The Establishment of a Department of Public Health has been debated in the Canadian House of Commons; every doctor in the House favored the project.

In connection with this very vital and very important question, we published last month a strong article on "The Appointment of Ministers of Public Health" from the pen of Dr. Bushnell, of England, who has made a special study of the entire subject.

Year after year the Canadian Medical Association has urged upon the Federal Government the urgency and necessity of this step, but although that association voices the sentiment of the

Canadian profession, nothing has come of it. It is well known that public health matters in Ottawa are scattered over five or six departments of the public service. How business men who are always preening themselves upon their superb knowledge of doing business, or how parliamentarians, many of whom are almost statesmen, can drift along in such a very important matter of business and executive proficiency, staggers the susceptibility of us poor professional men, who are so often sneered at for being such poor business men.

What have we got to do with business? The fact is we are professional men and wish to be professional men, while business men throw some small sneers now and again at us for not being proficient at both. If professional men of the medical stripe had all to do with this question of a Department of Health, it would be mighty soon decided.

And so with Hospital Management if these institutions so far as the medical aspects of same go, were handed over entirely to the care of medical men, and so-called business men stepped down and out, and stayed out, hospitals would be far better managed than they are at the present day.

Will somebody tell us why hospital boards should choose the poor man's physician for him? Flatly, is not that the right of every man to do for himself?

We heartily concur in the statement of *The Canada Lancet* that every doctor should follow his patient into whatever hospital he goes, irrespective of his being a private, a semi-private, or a public or semi-public patient. When the patient is paying per diem what the hospital demands of him, he has the right to have the physician he wants to attend him. Very few will deny this.

But there is still another class of patient who is admitted on a city order. His hospital maintenance is paid for by the municipality. All physicians as other citizens contribute to that patient's maintenance. It is said that it is right that some member of the "staff" should attend this patient, as the hospital is responsible for him. We deny this point blank. The hospital or the "staff" or even an outside physician (if any such condition in any hospital exists), has no right whatever to treat a city order patient for nothing at all. It is the duty of the municipality, which can always raise money by taxes, to pay for the treatment of this class of patient, just as much as it is its duty to pay towards the maintenance account. Municipalities should have health officers or assistants to treat their patients in whatever hospital they send that patient to.

We do not find newspapers, for instance, sending their paper to these patients gratis; nor the florist sending flowers, nor the fruiter supplying the fruit. We simply find the medical man on the "staff" giving his services free. This is a far different thing to treating a man in his own home free of charge. That is the individual doctor's own prerogative in the charity-blessing rights of the profession of medicine. It is altogether different where the municipality or the state *demands* of the doctor *that* individual right in municipal and state institutions.

The Canadian Medical Association, after considerable correspondence all over the country, has decided to meet this year on the 9th, 10th, and 11th of June. The place of meeting is Ottawa, the President, Dr. F. Montizambert, Director-General of Public Health. The President has appointed Dr. R. W. Powell Chairman of the Committee of Arrangements. Dr. Powell's well known organizing and executive ability, combined with his enthusiasm for the Canadian Medical Association, will greatly strengthen the President's hands in securing a successful meeting. The fact that the new constitution comes into effect at this meeting is something of great importance. This calls for the affiliation of the existing provincial societies, and they will no doubt all seek affiliation in the national body. It will be "up to" the provincial societies to get the county, city and district societies under their respective wings. The county and city societies should early move and work towards seeking affiliation with the provincial societies to ensure for their members, membership in the national organization. This is incumbent on them if they wish for representation in the Executive Council of the Canadian Medical Association, which will be the business body of that Association. By so doing the annual meetings of the Canadian Medical Association will be sure to be productive of more good to individuals and to the profession of medicine in Canada than heretofore.

The Ontario Medical Association will meet in Hamilton this year the latter week in May. As we have frequently pointed out before, it is a wise decision on the part of this Association to travel. We, therefore, urge a full attendance from all over the Province, and Toronto and Eastern Ontario in particular. We hope the itinerary will continue, that Kingston or some point in Eastern Ontario be selected for next year. Far too long and also too often has the Ontario Medical Association convened in Toronto. It tended to make the Association altogether too local. Even if, when the Association has met in other places than Toronto, the attendance was not quite so large—what mattered it? No doubt there was just as good a meeting from a scientific standpoint, just as good from a social standpoint. It seems to us the only way to make the Association representative of the Province. At any rate the experiment of meeting in different cities in Ontario should be tried for a few years, and the various city and county societies kept stimulated. Another year London, Ottawa, Windsor, Niagara Falls, Guelph, etc., might be tried with good success.

The popularity of the present President will be sure to be a good drawing card to Hamilton.

On another page we print a preliminary programme which speaks for itself.

One Thousand and Ninety-Eight City Order Patients were treated in the Toronto General Hospital in 1907; 719 in St. Michael's; 231 in Grace; 253 in the Western. The maintenance of these patients was paid by Toronto and came out of the pockets of the taxpayer. Everything for them was paid for except the treatment they received at the hands of the physicians and surgeons of the staffs. The question is—if a municipality is able to pay for the maintenance of these patients, why is it not able to pay as well for their treatment? Surely the medical profession does enough of individual charity work outside of hospitals without municipalities—which could very readily by a fraction of a mill, pay for the treatment of these pauper patients—getting this good something for nothing. Here are practically 2,500 patients treated in the hospitals of Toronto—to say nothing of outdoor work—annually, without a single dollar of increment to any practitioner. Does it not appeal to the profession of medicine that it is high time municipalities should pay for this treatment? Attached to the health departments of municipalities should be physicians and surgeons who were capable of properly treating municipal patients; and their services should be paid for by those whose charges they are. Amongst many people there is harbored the idea that these surgeons and physicians on the staffs of hospitals, are paid for their services by the hospitals or the Government or somebody. Why should it not be so in reality?. Would there be much opposition from the taxpayer. If a viaduct, a power scheme or a filtration plant is projected, as a great public work, the people expect to pay for it. Is there any greater public work than that of caring for the sick poor of the state—but it goes totally unpaid for. Under its health officer, every municipality should have its appointed physicians and surgeons to attend its patients, especially its hospital patients. A hub-bub may be raised, when municipal order patients are assigned poor quarters in hospitals. They are not getting value for the municipal money. The municipal ox is being gored. But there is nothing at all said when the very linchpin in the case of municipal hospital patients—the treatment of the patient—comes under the limelight. Probably, however, the public is not educated up to this matter. At any rate they need enlightenment to the fact that the municipality still continues to pay for everything for their patients except the doctor's attendance. We are so magnanimous and we are all so rich that we can afford to be charitable not only to individuals but as well to municipalities.

Osteopathy—An old saying has it, "Better out of the world than out of the fashion," and it is astonishing when we come to think of it, to what an extent this creed is adopted by a very considerable proportion of the community. Two generations ago men ran largely to "Dundrearys" in the matter of whiskers; to-day we find many men, even of mature years, adopting the clean shaven face, and the barber shop habit. Of the vagaries of feminine fashion it is not necessary to speak. This is the age of the auto, and new fashions in raiment as well as in phraseology are upon us. There are fashions in almost every conceivable walk of life, and it is therefore not surprising that there are fashions in connection with the healing art. Time was when our forefathers were treated with maximum doses of medicine, as well as by almost universal "bleeding"; anon, came the swing of the pendulum to the other extreme, and the fashion of homoeopathy was established. Otherwise sane men came to believe in the efficacy of a centillionth of a grain of carbon, and the infallibility of "similia similibus curanter." Gradually the medical world evolved a saner belief, founded on a firm, pathological basis, and a rational clinical experience. Meanwhile, however, the laity continue to be powerfully swayed by fashions and fads, medical and otherwise.

Several years ago most of us remember the revolution "massage" was going to accomplish in the healing of the afflicted. It had its day—and many who practised it had a goodly reward in coin. Some new fad had to be unearthed if money was still to be made by those who were unwilling to earn an honest living out of the legitimate practice of physic. Hence, hydro-therapy and electrotherapy (not in their scientific sense) became in turn a fruitful source of revenue to many fakirs. Most fashions, however, if one lives long enough, make their reappearance, albeit sometimes under a new name. Once we had "massage"; now we have "osteopathy" —and if report be true, it is doing "good business."

No one will deny that "massage," hydro-therapy, and what not other "pathies" have their limited sphere of usefulness; but when we are treated to the astounding spectacle of "osteopathy" being vaunted as a means of curing such conditions as labyrinthine and middle ear deafness, goitre, female weakness (which *particular* weakness deponent sayeth not!), atheroma, varicose veins and heaven knows what else, and a licensing body such as the Council of the College of Physicians and Surgeons of Ontario permits such practice to be carried on openly, surely it is about time to call a halt.

If a man can openly practice massage for the cure of varicose veins, and at the same time treat an inflamed varicose ulcer by means of moist boracic dressings and bandaging, and can collect fees for the same, all on the strength of the title "D. O."—a degree got from God knows where—which is not recognized by the council aforementioned, what shall it profit a man to put in years of hard study to become legally qualified as a practitioner of medicine and surgery, to spend money in appliances and to pay annual dues to said council for medical protection? 2 plus 2 equal 4. It would seem rather that the sum total may mean anything the public like to make it.

As we have pointed out before, the profession of medicine is not a "ring" or "close corporation," but on the other hand is open to all, male or female, black, white or yellow, *all* who choose to comply with the requirements. The medical practitioner is surrounded by a high fence of medical ethics, over which he seldom seeks to escape to the surrounding fields of quackery with their oft alluring flowers of financial gain. The medical profession as a whole is working for the welfare of humanity at large and a legitimate livelihood. That profession, then, should be safeguarded in every possible manner, and at the same time the public should be safeguarded from itself, and from the silly fads which prey upon the all too credulous masses.

Men and women are quick to cry out against food adulteration and the common cheat who sells a loaf underweight, or a quart of milk of doubtful standard, yet rise in wrath if anyone threatens to prevent them from making fools of themselves by listening to the song of the charlatan.

If we seek a remedy, is it likely to come from the public? No. From the pulpit? It has troubles of its own. From the press? Advertisements are a paying proposition. Surely the cure lies with ourselves, in united action and protest so vigorous that the public at large shall be compelled to uphold our hands and our principles—or declare finally for a wide, open policy, which, regrettable as it would be, would still be better than tying the hands of the profession, and allowing quackery to walk abroad unashamed.

News Items.

MONTREAL GENERAL HOSPITAL had a deficit of $20,000 in 1907.

THE Montreal General Hospital treated 3,347 indoor patients in 1907.

ONTARIO hospitals treated 45,551 indoor patients in 1907, hospital year.

DR. TOOLE has resigned his position as Medical Health Officer in Brussels.

DR. LOCKHART, Reeve of Hespeler, has been elected Warden of Waterloo County.

THE Ontario Department of Agriculture has issued a bulletin on breakfast foods.

OF thirty-seven cases of smallpox in Winnipeg since December but six were ever vaccinated.

MONTREAL employs female nurses to visit schools and administer treatment to sick pupils.

THE number of persons who died of tuberculosis in Ontario during the last year was 2,667.

DR. MANES, of Sheffield, Ont., left for England not long ago to take a course in the hospitals there.

THE total cost of maintenance of the hospitals in Ontario in 1907—hospital year—was $1,415,140.68.

THE Victorian Order of Nurses in Montreal attended to in 1907 2,912 patients, necessitating 29,073 visits.

THE endowment fund of the Montreal General Hospital is now $137,182.50; $39,182.50 was added in 1907.

Two hundred and nineteen nurses have been graduated from the Montreal General Hospital; 21 in 1907.

Dr. W. McClelland, of Toronto, will assist Dr. Colbeck, and has already taken up his residence in Welland.

Dr. Bradley, License Inspector for Centre Bruce, has been secretary of Bervie Orange Lodge for 36 years.

Dr. George H. Wilson has returned to London, Ont., from a three months' trip to Central and South America.

Dr. Grier, of Dundalk. has charge of Dr. Hamilton's practice in Erin, the latter taking a special course in New York.

Dr. Morley Currie, M.P.P. for Prince Edward county, has been seriously ill, but we are glad to say is recovering nicely.

There are 65 hospitals in Ontario, one at Niagara Falls, Goderich, Wingham and New Liskeard, having been opened in 1907.

The Sick Children's Hospital, Toronto, is asking the Toronto City Council to increase its grant from $10,000 to $16,000 per annum.

In 1907 the Toronto General Hospital cared for 1,098 municipal patients; St. Michael's Hospital, 719; Grace Hospital, 231, and Western, 253.

Prince Edward county medical men have followed the example set by other medical men throughout Ontario and raised their professional charges.

Notre Dame Hospital, Montreal, and the General Hospital, same city, are asking the Quebec Government for an additional grant each of $10,000.

A bill to regulate the sale of patent and proprietary medicines is before the British Columbia Legislature. If passed it will go into force August, 1908.

Dr. Geo. Clingan, an ex-Dufferinite and a one-time student at Orangeville High School, was elected Mayor of Virden, Man., at the late municipal election.

Dr. J. H. Paterson, of McGill Medical College, Montreal, was chosen from among seventeen applicants for a position in the Western Hospital, Montreal.

The Toronto Branch of the Victorian Order of Nurses was employed in 1907 by 312 Toronto physicians. Out of 2,219 cases attended there were but two deaths.

Dr. George Elliott, General Secretary of the Canadian Medical Association, has been appointed Provincial Medical Examiner for the Royal Arcanum in Ontario.

In Ontario the Government grant to every municipality which establishes a sanatorium for consumptives is $4,000, and $1.50 per patient per week for maintenance while in residence.

Dr. Fisher, who practised on St. Patrick St., Toronto, died on the 13th of Feb., after two days' sickness from pneumonia. He was a graduate of Trinity University, 1888, and was in his 59th year.

St. Paul's Contagious Disease Hospital, Montreal, attended in 1907 to 70 cases of diphtheria; 68, scarlet fever; 5, scarlet fever and diphtheria combined; 68, measles; 1, measles and scarlet fever; 4 cases of erysipelas.

Two thousand three hundred and sixty-six patients were treated in 1907 in Notre Dame Hospital, Montreal. Of this number 1,273 left the hospital cured, 693 improved, while 245 died, 87 of whom were practically dying on entering the hospital.

John McMaster, B.A., M.D.C.M., Trinity University, 1894, died in Toronto, Feb. 20th, aged 49 years. The late Dr. McMaster was X-ray specialist to the Toronto General Hospital, was a good all-round general practitioner, and a man of quiet and unassuming demeanor. The cause of death was blood poisoning.

Dr. John Alexander Knight, of Toronto Junction, is dead. Dr. Knight was a young man, who graduated from Trinity College in 1899, and then practised for several years in the State of Michigan. Here he was stricken by tuberculosis, thought to have been contracted from a patient, and had spent the past several months in the Junction.

Dr. A. Ross Hill, the young Nova Scotian, who is winning a high place as a scholar and educationist, has just been appointed President of the University of Missouri, one of the largest of Western universities. Dr. Hill is a native of Colchester County, and is only 37 years old. He is a brother of Dawson Hill, M.P.P.

The recent elections for the British Columbia Medical Association has resulted in the following medical board, which will conduct medical matters in that province for the next three years:—Drs. S. J. Tunstall, R. E. McKechnie, and Proctor, Vancouver; Drs. O. M. Jones and C. J. Fagan, Victoria; Dr. R. Eden Walker, New Westminister; Dr. Sutherland, Revelstoke. Dr. Fagan will be Secretary, and Dr. Jones, Chairman.

THE forty-first annual meeting of the Canadian Medical Association will be held in Ottawa on the 9th, 10th, and 11th of June, 1908. Members and others who intend to be present and to take part in the discussions or contribute papers, will kindly so inform the General Secretary, Dr. George Elliott, 203 Beverley St., Toronto, at their early convenience.

DR. BUCK, of the little village of Palermo, in the County of Halton, has made for himself a record of which any Canadian might be proud. He has practised medicine continuously there for fifty-four years. For forty of these he was a member of the Township Council of Trafalgar, and during that time he was absent from only one meeting. For twenty-four years he was reeve of the township, and in that time did not miss a single meeting of the County Council.

DR. WM. E. SPRAGUE, Belleville, died suddenly, on Jan. 25th, aged 58, while arranging with the Belleville City Council interests connected with the bridge across the Bay of Quinte. The doctor, was the owner of this bridge connecting Prince Edward County and Hastings County, and was considered very wealthy. He graduated M.D., C.M., Trinity, in 1884. In 1907 he became B.A., Queen's, and was a Fellow of the Royal College of Surgeons (Edin.). His family consisted of his wife and one son, a student in Arts course at McGill. The doctor was a cousin of Dr. Sprague, Stirling.

DR. D. J. GIBB WISHART, Associate Professor of Laryngology and Rhinology in the University of Toronto, leaves early in March for Italy, where he intends to follow the clinics of Professor Massei and others in Naples, Rome and Turin. Subsequently he will attend the International Laryngo-Rhinological Congress in Vienna in Easter week, which is being held to commemorate the fiftieth anniversary of the establishment in Vienna of Clinical Laryngology and Rhinology by Turck and Czermak. Later, Dr. Wishart will spend some weeks at the Clinics of Professor Killian in Freiburg and Hammel in Heidelburg before going to England. The doctor and his wife expect to return to Canada about the middle of June.

SMITHSONIAN INSTITUTION, Hodgkins Fund Prize—In October, 1891, Thomas George Hodgkins, Esquire, of Setauket, New York, made a donation to the Smithsonian Institution, the income from a part of which was to be devoted to "the increase and diffusion of more exact knowledge in regard to the nature and properties of atmospheric air in connection with the welfare of man." In the furtherance of the donor's wishes, the Smithsonian Institution has

For COUGHS and
THROAT IRRITATION

PINOCODEINE

"FROSST"

Each fluid drachm contains:—Codeine phosphate ¼ gr. combined with Pinus Strobus, Prunus Virginiana, Sanguinaria Canadensis, Populus Balsamifera and Chloroform.

As a routine expectorant, it is the same reliable product that has had the support of the profession for the past eight years.

STOPS COUGHING,
ALLAYS IRRITATION,
ASSISTS EXPECTORATION

Perfectly safe with patients of any age.

For GRADUAL or
SUDDEN HEART FAILURE

Elixir Digitalin Co. "Frosst"

Each fluid drachm contains:—Digitalin 1-100 gr.
Nitroglycerine 1-100 gr. Strychnine 1-50 gr.

The original product that has created the demand for this energetic stimulant.

CHARLES E. FROSST & CO.

MONTREAL, CANADA

from time to time offered prizes, awarded medals, made grants for investigations, and issued publications. In connection with the approaching International Congress on Tuberculosis, which will be held in Washington, Sept. 21 to Oct. 12, 1908, a prize of $1,500.00 is offered for the best treatise that may be submitted to that Congress "On the Relation of Atmospheric Air to Tuberculosis." The treatise may be written in English, French, German, Spanish or Italian. They will be examined and the prize awarded by a Committee appointed by the Secretary of the Smithsonian Institution in conjunction with the officers of the International Congress on Tuberculosis. The right is reserved to award no prize if in the judgment of the Committee no contribution is offered of sufficient merit to warrant such action. The Smithsonian Institution reserves the right to publish the treatise to which the prize is awarded. Further information, if desired by persons intending to become competitors, will be furnished on application to Charles D. Walcott, Secretary, Smithsonian Institution, Washington.

Publishers' Department

PUBERAL ANEMIA.—Broad clinical experience certainly tends to support the opinion of many medical men that chlorosis is practically limited to the female sex, and to these during the child-bearing period. As is well known, chlorosis is hardly a true anemia, inasmuch as it consists rather of a decrease of hemoglobin than any marked or constant diminution in either the corpuscles or mass of the blood. There is a true anemia, however, which occurs at or about puberty and is common to both sexes. This may properly be spoken of as a puberal anemia, and manifests itself by both oligocythemia and oligemia. Young men as well as young women are attacked, and the cause seems to rest on actual structural deficiencies rather than on emotional influences, as is generally believed to be the case in chlorosis. It is slow and insidious in its onset, and is characterized by a pallor or bloodless appearance quite different from the greenish color of chlorosis. Examination of the blood shows a greater or less decrease of hemoglobin, but, unlike chlorosis, the red cells and total quantity of the blood are lowered very markedly. Strange to say, however, the specific gravity is usually raised in puberal anemia, while in chlorosis it is generally lowered. One pronounced clinical symptom referable to the pulse, according to a prominent English authority, will, moreover, be found in puberal

131.

Dominion Medical Monthly

And Ontario Medical Journal

Vol. XXX. TORONTO, APRIL, 1908. No. 4.

Original Articles.

NOTES FROM THE CLINICAL HISTORY OF A PATIENT SUFFERING FROM HEART BLOCK (STOKES-ADAMS DISEASE), AND DELUSION OF INFECTION OF SKIN BY INSECTS (ENTOMOPHOBIA)

By Graham Chambers, B.A., M. B.
Physician to Toronto General Hospital.

The patient, aged 50, farmer, was admitted to Toronto General Hospital on .... complaining of itching and an infection of the skin by insects. He also complained of cold extremities and fainting attacks. Patient has a brother and a sister who also suffer from the same affection of skin. From boyhood patient has worked very hard, and received little education. For many years he drank heavily, but has not drunk much during the last four years. He does not smoke except an occasional cigar. When nineteen years old, he had typhoid fever. He has never had lues. All his life he has suffered much from headaches. The attacks would appear once or twice a month and last for two or three days. About eighteen years ago while at work he felt suddenly "all gone," "just played out," and could hardly do anything more. The next day he was all right; but from time to time he has felt this same sensation while working hard. About six years ago while working he suddenly felt a buzzing in his head, fell down and was unconscious for a minute or so. He soon recovered, and in a few minutes was able to go on with his work. That night, however, he felt the same buzzing in his head, but did not become unconscious. One morning, about two years afterwards, he had a similar attack just after getting out of bed. A friend who happened to be present said that he lay on his back for about a minute and then looked around with a vacant stare. Patient states that he has had, off and on, perhaps twice a month, milder attacks of dizziness and buzzing in the head, but in these he never became unconscious. They usually came on after exertion or just after rising in the morning.

If he stoops over at his work he becomes dizzy and also gets a pain in the region of the heart.

About a year ago he first noticed the itching. This commenced in the hands. About two weeks later his legs and feet became itchy. The itching left his hands, feet and legs and went to his trunk. He says that he became "raw" in spots and that he can show marks where his skin was excoriated. During the last few months there have been no marks on the skin; but the itching has continued, particularly in the head and pubic region. He believes that insects in his skin are the cause of the itching, and that he can find "thousands of them on his head and scrotum."

PRESENT CONDITION.

Psychic State.—Patient has a very high and narrow palate, of the gothic type. He has a peculiar way of looking when telling one of his complaints. He seems to look past or above one. Orientation as regard time, place, person and date is intact. Memory is good. He has marked derangements of perception; delusion, illusions, and probably hallucinations. Patient states that there are thousands of insects in his skin. He describes them and says there are three varieties—red, white and black—some being very small, others as large as a house-fly. Inspection of the skin does not give any sign of the presence of animal parasites, but one cannot convince him that they are not present. The delusion is fixed. He takes particles of dirt, scales, etc., for insects. On one occasion he showed me a dead spider, which he had picked up in the bathroom, as an insect from his skin.

PHYSICAL EXAMINATION OF CIRCULATORY SYSTEM.

Inspection.—When the patient is lying down the external jugular veins become engorged and slightly pulsate. They do not fill from below. The pulsations appear to be more frequent than the radial pulse. The apical impulse is visible, as is also a pulsation in precordial region, diverging from the apex towards median line of body. The P. M. I. is in 5th intercostal space, 14 cm. from mid-sternal line.

Pulse.—The radial is somewhat sclerosed and tortuous. Frequency, 34. Rhythm is usually regular. Vessel is well filled, but pressure (115 mm, Mercury) is not above normal. Pulse wave is very slow.

Percussion.—Cardiac dullness is much enlarged. At the level of nipple the relative dullness extends 14 cm. to left and 5 cm. to right of mid-sternal line.

Auscultation.—Systolic murmur is heard over the whole precordia, also in axilla and root of neck. Slight blowing diastolic murmur is heard in left second intercostal space, near the sternum. The first sound is only heard distinctly in apical region. Pulmonary second sound is accentuated.

Radioscopic examination shows enlargement of the heart and dilatation of the aorta. The right auricle appears enlarged. The beats of the auricle are more frequent than those of the left ventricle. I am indebted to Dr. Samuel Cummings for verifying the results of my radioscopic examination.

The clinical examination of this patient, then, shows the presence of: (1) a psychosis, characterized by a delusion of infection of the skin by insects, to which I have given the name entomophobia; (2) bradycardia, and repeated attacks of syncope, which together might well be looked upon as manifestations of heart-block, or described as a disease picture known as Stokes-Adams' syndrome.

If I be permitted I shall make a few remarks on these affections.

By entomophobia I mean a psychosis characterized by fixed delusion, or by obsessions of infection by insects, itch mites, etc.

Entomophobia with fixed delusions is somewhat uncommon. The patients complain of itching, probably an hallucination of ordinary sensation. Illusions are always present. The patients will collect scales, crumbs of bread, particles of dirt, etc., and exhibit them as the cause of their trouble. They are very much in earnest in trying to rid themselves of the imaginary infection. They are continually washing their clothes and thinking of means by which the insects could be exterminated. In many of the cases there are signs of hereditary defect.

The disease pursues a very chronic course, and according to my experience it is seldom cured.

Entomophobia with obsessions is a much milder form of mental affection. It is frequently a sequel of scabies, and according to my experience is very common. When following scabies, acarophobia would be an appropriate name. The patients have no fixed delusions, but ideas that they are infected by itch are continually forcing themselves into their consciousness, which, however, they recognize as morbid, and try to correct them.

Pruritus is always present and probably in most cases is partly caused by organic changes in the skin which have resulted from treatment. However, in all the cases, psychic disturbance either gives rise to or aggravates the itching. The probable explanation of this is that the images in the perceptive centres formed during the attack of scabies in some way reveal themselves by external projections.

The affection is curable. In the treatment, antipruritics are useful, but psychotherapeutic methods are most potent measures. An authoritative statement that the patient has not the itch always does much good.

HEART-BLOCK.

The term heart-block is applied to a pathological condition in which the passage of impulses from the auricles to the ventricles is obstructed, so that the automatic mechanism of the cardiac contractions is disturbed, and in place of being equal number beats of auricle and ventricle there may be two or more contractions of the auricle for each beat of the ventricle. The results of the blocking of the impulse is to diminish the frequency of the pulse, so that bradycardia is a very common manifestation of the condition.

Gaskell, in 1883, was the first to make use of the term heart-block. He, experimenting on the heart of a tortoise, found that by compressing the heart at the auricular-ventricular groove by means of a clamp, that he could change the normal ratio of auricular and ventricular beats from one to one to two or more to one. From his experiments he came to the conclusion that stimuli were conducted from one part of the heart to another by muscles, but with this myogenic theory he was unable to explain how the stimulus was conducted from auricle to ventricle. This view of Gaskell receives much support from many physiologists, but for the following twenty years no one solved his difficulty, until, in 1903, His, Jr., dissected out a bundle of muscle fibres connecting the auricles to the two ventricles. The auricular end of this band begins near the coronary sinus and passes in the auricular septum towards the tricuspid opening, and then into the ventricular septum. The structure of the bundle is quite different from that of anything else in the heart. Purkinge's cells are probably the end filaments of the bundle.

The discovery of this bundle afforded an explanation of Gaskell's experiments. It also gave an explanation of many clinical observations. The symptom-complex known as Stokes-Adams' syndrome is a natural result of disease of the bundle, the bradycardia being due to blocking of the stimuli from the auricle, and the fainting attacks and convulsions to anæmia of the brain. The conception has received support from the finding of disease-gumma, etc., in the bundle in cases of Stokes-Adams' syndrome.

Proceedings of Societies.

CANADIAN MEDICAL ASSOCIATION AND A FEDERAL DEPARTMENT OF PUBLIC HEALTH.

Resolution re Department of Public Health.

At the thirty-fifth annual meeting of the Canadian Medical Association, the largest and most representative meeting of the Canadian medical profession up to that time, and which was held in the city of Montreal on the 16th, 17th, and 18th of September, 1902, the following resolution was proposed by Dr. E. P. Lachapelle, Montreal, and seconded by Dr. J. R. Jones, of Winnipeg.

Whereas, public health, with all that is comprised in the term sanitary science, has acquired great prominence in all civilized countries; and

Whereas, enormously practical results have been secured to the community at large, by the creation of Health Departments under governmental supervision and control: and

Whereas, greater authority and usefulness are given to health regulations and suggestions when they emanate from an acknowledged governmental department;

Therefore be it Resolved, That, in the opinion of the Canadian Medical Association, now in session, the time is opportune for the Dominion Government to earnestly consider the expediency of creating a separate department of public health, under one of the existing Ministers, so that regulations, suggestions and correspondence, on such health matters as fall within the jurisdiction of the Federal Government, may be issued with the authority of a Department of Public Health. That copies of this be sent by the General Secretary to the Governor-General-in-Council and to the Honorable Minister of Agriculture.

This resolution was strongly supported by Dr. T. G. Roddick, M.P., the Honorable Senator Sullivan, Kingston, and other prominent and influential members of the Association, and carried unanimously.

The President of this Association, Dr. Walter H. Moorhouse, of London, Ontario, then appointed the following Special Committee to take the matter in hand and report at the annual meeting, which was held in London, Ontario, on the 25th, 26th, 27th, and 28th days of August, 1903: Dr. R. W. Powell, Ottawa (Convener); Dr. T. G.

Roddick, M.P., and Dr. E. P. Lachapelle, Montreal. This Committee reported through Dr. Powell to the Association at London on the 26th day of August as follows:

Ottawa, August 24th, 1903.

To the President and Members of the Canadian Medical Association:

Gentlemen,—Your Committee, consisting of Dr. T. G. Roddick M.P., Dr. E. P. Lachapelle, and Dr. R. W. Powell, convener, acting under instructions from your President, had the honor to wait upon the Prime Minister to represent to the Government the resolution passed at the last meeting of your Association on the question of the creation of a Department of Public Health under one of the existing Ministers. The whole matter was gone into thoroughly, and your Committee endeavored to press upon the attention of the Government the great desirability and importance of placing all matters included under the term "public health," with which the Dominion Government has to do, upon a higher basis than now obtains.

It was pointed out that this Association, representing the whole Dominion, in which there are over 5,500 practitioners, had concluded that it would be in the best interests of the general public welfare of the Dominion that such should be done, and that the time has come when Canada should be elevated from the entirely secondary place she now occupies among the nations in this branch of the public service, and that she should at once have a status conferred by Parliament whereby all questions relating to sanitary science and public health should be dealt with from a central authority, to be known as the Public Health Department.

Many matters of detail were not particularly discussed at the interview, inasmuch as your Committee felt that their duty consisted chiefly in pressing upon the Government the main idea by endeavoring to show that the present system of having the various subjects scattered throughout several departments, with consequent multiple division of authority, was not calculated to impress the public with the great importance of the administration.

Your Committee, moreover, insisted strongly that our profession was a strong, active body of earnest workers, and their number and influence entitled them to this consideration, which was for the public welfare, and not in any way directly or indirectly for their personal benefit, and finally it was pointed out that the skeleton of this plan is already well laid, and a Director-General of Public Health holds an appointment to-day, an earnest hard-working able official at present issuing his orders in re quarantine from the Department of Agriculture, which is an anomaly *per se*, and lessens the authority in a measure, and yet he has nothing to say as regards sick seamen, sick Indians, adulteration of food, vital statistics, and has no laboratory under his control.

The Prime Minister was most courteous, and listened patiently to the arguments set forth, and finally authorized Dr. Roddick to place a resolution on the order paper, with a view to having a discussion in Parliament before the Privy Council took up the matter in earnest.

Sir Wilfrid Laurier also stated that, in the absence of the Minister of Agriculture, who was familiar with the whole question, he would not willingly go into the matter at greater length with a view to legislation, in the Minister's absence.

Dr. Roddick's resolution was as follows:

"That it is expedient in the public interest to constitute a Department of Public Health for the Dominion, charged with the execution of the various duties which are or may be, imposed upon or assumed by the Government, for the protection of the public health, and the prevention and mitigation of diseases, and that such Department of Public Health be administered under the direction of a Minister of the Crown, in conjunction with one of the existing Departments of the Government."

On the return of the Minister of Agriculture from Japan, your Committee was again convened, and waited upon him, when the subject was again carefully gone into. The Committee feel they have a warm advocate in Mr. Fisher, who is thoroughly alive to the necessities of the case, and if his colleagues in the Government would carefully consider this matter, and the justice and importance of the claim for consideration we as a profession are making, they would readily acquiesce. Some difficulties naturally stand in the way, and some difficulties are easily introduced into the way, but a way can be found for this measure to be put through, as has been found for other measures, and will be found for future measures, if only there is a willingness on the part of the Government to place this matter in the position it ought to occupy. Let me say that Parliament is still in session, and, therefore, it may yet transpire that the final decision of the Government may not be adverse, and the delay will be found to be due only to the great strain of urgent public business of weightier moment.

Your Committee expresses the hope that their efforts have not been entirely in vain, and they beg to report that, in their opinion, the profession as a whole must continue to press their claims for a proper recognition of this question at the hands of the Government by influencing all those with whom they may come in contact, and, moreover, by continuing to further influence public opinion by definite announcements from time to time in the form of resolutions emanating from this parent Association, and others of a like character throughout the Dominion.

Respectfully submitted on the behalf of your Committee.

(Signed) R. W. Powell, Convener.

Mr. I. H. Cameron, of Toronto, a Past-President of the Association, moved the adoption of this report, which was done unanimously, after a full and extended discussion.

Dr. Adam H. Wright, Toronto, then presented the following resolution, which was seconded by Dr. H. H. Chown, of Winnipeg:

Whereas, this Association at its meeting in Montreal in 1902 placed itself on record by resolution to the effect that it is expedient that a Department of Public Health be created by the Dominion Government, and administered under the authority of one of the existing Ministers of the Crown;

It is further Resolved at this meeting to again press upon the attention of the Government that Canada is not preserving her status among the nations in this branch of the public service, and that it is anomalous to have the various matters connected with the administration of public health, so far as it appertains to the Dominion Government, spread through four or five departments.

It is further Resolved, That, in the opinion of this Association, the profession of medicine in the country, being actuated in this matter solely in the best interests of the public welfare, and with an earnest wish to place Canada on a par with other civilized countries, is entitled to expect that the honorable the Privy Council of Canada will, at an early date, take this question into its best consideration, so that by the time our Association meets again in the autumn of 1904, we will be made officially acquainted with a decision.

That a copy of this resolution be transmitted by the Secretary to the Right Honorable the Prime Minister, to the Honorable the Minister of Agriculture, and to the Honorable the Privy Council of Canada through the Honorable R. W. Scott, Secretary of State. Carried unanimously.

Dr. S. J. Tunstall, Vancouver, B.C., the President-elect, reappointed this Special Committee, with instructions that they prosecute the matter still further, and be able to present at the next annual meeting, in Vancouver, in 1904, a more favorable report.

Report of Special Committee on Public Health.

Vancouver, August 26th, 1904.

To the President and Members of the Canadian Medical Association:

Gentlemen,—Your Committee in charge of the question of the establishment of a Department of Public Health by the Dominion Government have the honor to report that the matter has, to a certain extent, been in abeyance since our meeting at London last year (1903). At that meeting you will recollect we reported certain interviews with the Prime Minister and the Minister of Agriculture, at which we were led to understand that it was not feasible for the Government to give us any assurance that our wishes in the matter could be practically considered. The resolution again passed at London pressing the subject on the attention of the Government as one closely associated with the country's welfare and best interests, was duly forwarded to the Dominion authorities.

It was also pointed out to the Honorable the Minister of Agriculture by the convener of your Committee that the medical profession of the Dominion, as represented by the Canadian Medical Association, were united in their desire to have such a department created, and that they were only actuated in the matter by motives of patriotism, feeling assured that the administration of public health in matters pertaining to the Dominion Government would be greatly facilitated and rendered more useful and satisfactory if it emanated from a central department instead of having a series of branches having executive authority scattered through a number of departments of the Government.

Your Committee are gratified to be able to report that there are evidences that, during the present recess, the matter will engage the attention of the Privy Council more seriously than it has hitherto done. Before legislation could be introduced certain questions involving much consideration will have to be settled, and we are given to understand that these preliminaries will be weighed before Parliament meets. While it is to a certain extent unsatisfactory to be obliged to report in such an indefinite way, yet we trust the Association will understand we have not been idle, but that in a matter of this kind we are in the hands of the goodwill of the Government, and that it would be neither judicious nor delicate to compromise the present favorable opportunity by referring in detail to the reasons that have enabled us to hazard our present opinions.

Respectfully submitted.

(Signed) R. W. Powell,
Convener of Special Committee.

This report, on motion, was received and adopted.

Resolution re Public Health.

Vancouver, August 26th, 1904.

Moved by Dr. H. A. Lafleur, Montreal, and seconded by Dr. O. M. Jones, Victoria, and

Resolved, That the Canadian Medical Association regret that the Dominion Government have not seen their way clear to carrying out the suggestions contained in the several strong resolutions of this Association passed during the past three years on the question of the establishment of a Department of Public Health under one of the existing Ministers of the Crown.

That it be further Resolved, That this Association continue to press the wishes of the medical profession of the Dominion on this subject on the attention of the Government, inasmuch as we feel assured that the difficulties to be overcome in order to bring about such a desirable end are of small consequence to the public welfare compared to the beneficial results that will follow.

That the sub-committee in charge of this matter be reappointed at this meeting and requested to continue their efforts of the past three years.

That a copy of this resolution be sent by the General Secretary to the Right Honorable the Prime Minister, the Minister of Agriculture, and the Secretary of State. Carried.

Halifax, N.S., August 24th, 1905.

The General Secretary read for Dr. R. W. Powell the report of the Special Committee on a Public Health Department for Canada:

To the President and Members of the Canadian Medical Association:

Gentlemen,—As convener of your Committee in re the creation of a Department of Public Health, as a Dominion measure, I have the honor to report that practically no advance has been made since we first presented your views to the Federal Government on this important question three years ago.

Strong resolutions have been passed by your Association, containing the views of the profession on this matter. Year after year they have been duly forwarded to the proper authorities at Ottawa, to say nothing of the personal representations of our Committee conveyed to the Government by way of deputation and personal interview. On the last occasion I waited on the Honorable the Minister of Agriculture he pointed out to me that he was familiar with the views of our Association as contained in the several resolutions referred to above, and that it appeared to him to be unnecessary to call the Committee to Ottawa to reiterate what we had so clearly laid before him. He assured me that the whole question had his entire sympathy, and that he trusted to see such a scheme as had been outlined to him brought into operation, and he further said that it was his intention to bring the matter again to the attention of the Prime Minister, he hoped at a date sufficiently early to enable him to give something rather definite for our meeting at Halifax.

Your Committee feel that they have done what they could to induce the Government at Ottawa to create a Department of Public Health under one of the existing Ministers in order to place this important branch of the public service on the same footing as it stands in nearly all progressive countries. We regret, however, to be obliged to report that so far our efforts have been unavailing, and as we believe that a more powerful and influential committee is needed from this Association, to more seriously impress the Government with the great importance of this question, we respectfully ask to be discharged.

(Signed) R. W. POWELL, Convener.

Dr. George Elliott moved, seconded by Dr. Stewart, Palmerston, that the Committee be discharged. Carried.

The General Secretary then proposed the following resolution in the name of Dr. Powell:

Resolved, That a Committee be appointed from this Association to wait upon the Dominion Government and lay before them the several resolutions now on the books of this Association in reference to the creation of a Department of Public Health, in order that all matters pertaining to the public health over which the Dominion Government has jurisdiction may be administered under one official head.

That the Committee be requested to impress upon the Government the great importance and public utility of the matter, and that it is the wish of the medical profession in the Dominion, as represented by the Canadian Medical Association that such an advance be made in this branch of the public service.

That the Committee consist of Dr. E. P. Lachapelle, Montreal (convener); Dr. R. W. Powell, Ottawa; Dr. J. W. Daniel, M.P., St. John; Lieut.-Col. Carleton Jones, M.D., Halifax; Dr. H. A. Bruce, Toronto, and Dr. H. H. Chown, Winnipeg, with power to add to their number. Carried.

Montreal, Sept. 13th, 1907.

On motion by Dr. R. W. Powell, Ottawa, seconded by Mr. I. H. Cameron, Toronto, the Association reaffirmed its opinions in the various resolutions upon the minute book as to the creation of a Department of Public Health for the Dominion of Canada; also reappointing the Halifax Committee and adding thereto those members of the Canadian Medical Association, who were members of Parliament.

Special Committee on Public Health Department:—Dr. E. P. Lachapelle, Montreal (convener); Dr. R. W. Powell, Ottawa; Dr. J. W. Daniel, M.P., St. John; Lieut.-Col. Carleton Jones, Ottawa; Dr. H. A. Bruce, Toronto; Dr. H. H. Chown, Winnipeg, Man.; Dr. J. B. Black, M.P., Windsor, N.S.; Dr. Wilbert McIntyre, M.P., Strathcona, Alta.; the Hon. M. Sullivan, M.D., Kingston; the Hon. J. H. Wilson, M.D., St. Thomas; the Hon. L. George DeVeber, M.D., Lethbridge, Alta.

Ottawa, March 3rd, 1908.

A deputation comprising members of the Special Committee on Public Health of the Canadian Medical Association was introduced to the Prime Minister and the Honorable the Minister of Agriculture by Dr. Black, M.P. Dr. Lachapelle, the Convener of the Committee, then presented the following memorandum:

Memorandum on the Desirability of Establishing a "National Bureau of Public Health," Presented to the Dominion Government on Behalf of the Canadian Medical Association.

The progress of hygiene and preventive medicine, known under the name of "Public Health," has been so rapid and marked in the last decade that there is now an ever-increasing demand for governmental recognition of its importance. In England they are moving for a Minister of Public Health. In the United States, the Marine Hospital Service has been, by Act of Congress, enlarged into a Public Health Service. There are already Departments of Public Health in some of our sister colonies, and the medical profession of Canada, speaking through the Canadian Medical Association, has called upon the Government to create a Department or Bureau of Public Health under one of the existing Ministers. The importance of the subject will thus be recognized; and the reiterated demand comes from the representatives of the 6,000 medical men who move amongst and influence the 6,000,000 people of Canada.

The intention of such a department or bureau would be the consolidation within it, with a view to both efficiency and economy, of those matters concerning public health and sanitary questions which are already within the jurisdiction of the Dominion Government, although scattered amongst the different departments hereafter alluded to. The establishment of this department or bureau would obviate the confusion and extra correspondence often caused by the public's ignorance of the Minister of Agriculture's jurisdiction in public health matters, as well as facilitate the business of those coming to the Capital in connection with the various sanitary matters now divided up amongst the different offices of the Government, and many of them under non-medical heads.

There is no intention whatever, either direct or remote, of infringing in any way upon the autonomy of the Provinces or the matters of public health which are now within their jurisdiction. It is simply a matter of internal domestic consolidation within the Dominion Government itself. And its further objects are the governmental recognition of the importance of public health and the authority that such a department would have to issue rules, regulations, etc., in the name of the Department of Public Health. Our own experience, and the example of other countries, have taught us to believe that such publications so issued carry much more weight than similar ones issued in the name of any other department.

Amongst the sanitary and public health subjects now scattered over several departments, and without co-ordination or homogeneous supervision, that should be grouped together in a Department of Public Health, may be mentioned the following:

From the Department of Agriculture:

1. Sanitary advice to Dominion Government.
2. Quarantine, maritime and frontier.
3. Leprosy throughout the Dominion.
4. Public Works Health Act.
5. Health of animals.
6. The sanitary part of the census.
7. Vital statistics, Dominion.

From the Department of the Interior:

8. The sanitary and medical side of immigration affairs.
9. The sanitary and medical side of Indian affairs.

From the Department of Marine:

10. Sick seamen and marine hospital.

From the Department of Inland Revenue:

11. Adulteration of Foods and Drugs.

Additional:

12. Supervision of sanitary measures and sanitary police in the territories which have no organization corresponding to a Provincial Board of Health.

13. Sanitary direction of the service of protection of international waterways.

14. Sanitary supervision of the protection of the public health against the invasion of tuberculosis or other diseases by the importation of sick animals or of unhealthy articles of food.

15. National Bacteriological Laboratory. The Department of Public Health could be equipped with a national bacteriological laboratory, as is the case in other countries. Such a laboratory could report promptly on suspected specimens of micro-organisms from vessels, trains, etc., held under quarantine of observation.

The quality and purity of the various protective and curative agents — such as vaccine, tuberculin, Haffkine's prophylactic plague fluid, and the anti-toxins and serums of plague, cholera, diphtheria, typhoid, anthrax, etc., are of the utmost importance to the public health and to the well-being of the country. Their manufacture should, therefore, be controlled by the Government and not left in the hands of private interests as a commercial enterprise. They should be prepared by salaried officials in a national laboratory, and issued under the supervision and stamp of the Department of Public Health. In this way the maximum protection of the people of Canada in this matter can alone be obtained, and that confidence secured which will induce the people to properly avail themselves of these all-important means of protection from epidemic and infectious diseases.

With a Department or Bureau of Public Health so equipped Canada should then take a place worthy of her great position and destinies in original research under governmental control, towards the advancement of science, and the consequent benefit of all mankind.

The Provincial Board of Health of Manitoba, the Medical Society of St. John, N.B., and the American Public Health Association, have passed resolutions similar to those of the Canadian Medical Association, asking for a National Department of Public Health, under one of the existing Ministers.

On behalf of the Canadian Medical Association.

The Committee: E. P. Lachapelle, M.D., Convener.
R. W. Powell, M.D.
Carleton Jones, M.D.
J. W. Daniel, M.D.
H. A. Bruce, M.D.
H. H. Chown, M.D.
J. B. Black, M.D.
Wilbert McIntyre, M.D.

Dr. R. W. Powell, Ottawa, the General Secretary of the Association, Lieut.-Col. Carleton Jones, M.D., Dr. Schaffner, M.P., and Dr. Wilbert McIntyre addressed the Prêmier and his Minister.

The Prime Minister and Mr. Fisher were very much interested in the different addresses, at the close of which Mr. Fisher, in response to the query of Sir Wilfrid, as to whether it were feasible, stated in his opinion it was, but that he could foresee some difficulties in the way of an immediate re-organization and consolidation of the different medical services of the Government.

ONTARIO MEDICAL ASSOCIATION

The 28th annual meeting of the Ontario Medical Association will be held in the Normal College Building, Victoria Avenue South, Hamilton, May 26th, 27th and 28th, 1908.

OFFICERS.

President—Dr. Ingersoll Olmsted, Hamilton.

Vice-Presidents—Dr. H. J. Hamilton, Toronto; Dr. D. E. Mundell, Kingston; Dr. C. E. Casgrain, Windsor; Dr. T. S. T. Smellie, Fort William.

General Secretary—Dr. Charles P. Lusk, 99 Bloor St. West, Toronto.

Assistant Secretaries—Dr. Samuel Johnston, 169 Carlton St, Toronto; Dr. J. Heurner Mullin, 201 James St. S., Hamilton.

Treasurer—Dr. Frederick Fenton, 75 Bloor St. East, Toronto.

Chairman, Committee on Papers and Business—Dr. R. R. Wallace, 113 Main St. W., Hamilton.

Chairman, Committee on Arrangements—Dr. A. B. Osborne, 42 Charlton Ave. E., Hamilton.

To the Members of the Profession of the Province of Ontario—

We have pleasure in announcing to you the 28th Annual Meeting of the Ontario Medical Association, which will be held in the Normal College Building, Victoria Avenue South, Hamilton, May 26th, 27th and 28th next. In response to the very evident feeling of the members at the last meeting, that the work of the Association could be broadened and the sympathetic co-operation of a larger number of the Profession secured by a departure from the routine of the last few years, it was decided to hold the 1908 meeting in Hamilton. The members in Hamilton have enthusiastically responded in making preparation for the event, as a perusal of the programme will show.

The meeting will again be divided into sections of Medicine and Surgery, and probably sections in Obstetrics and Pediatrics in the Eye, Ear, Nose and Throat, and in Preventive Medicine, which will meet in the morning for the reading of papers and their discussion, and General Sessions meeting in the afternoon, during which the addresses will be delivered and papers of general interest read. These will be followed on Wednesday and Thursday afternoons by the Business Sessions. The evenings will be given up to pleasure. Tuesday evening there will be a Smoking Concert at the Yacht Club at Hamilton Beach, and on Wednesday, at 8 p.m., the Annual Dinner at the Royal Hotel, when the visiting members will be the guests of the Medical Profession of Hamilton. For each of these evenings suitable programmes are being arranged so that nothing in the way of entertainment will be wanting.

The Business Session on Wednesday afternoon, May 27th, will demand the attendance of every member of the Association, to hear the reports of the Committees and for the election of the officers for the ensuing year. The Committee appointed to revise the Constitution in harmony with that of the new Constitution of the Canadian Medical Association will present its report and as the discussion of this matter is fraught with interest of moment to every practitioner, involving as it does the question of the organization of the medical profession of the Province and of the Dominion, you ought to be there.

The following gentlemen from outside the Province have promised to attend, and the list of names is such as will of itself lend pre-eminent interest to the scientific side of the programme.

Charles G. Stockton, Professor of Medicine, University of Buffalo, and

Charles L. Scudder, Surgeon to the Massachusetts General Hospital, Boston, who will respectively deliver the addresses in Medicine and Surgery.

Virgil P. Gibney, Professor of Orthopedic Surgery, Medical Department, Columbia University, New York City.

Harry C. Buswell, Adjunct Professor of Medicine, University of Buffalo.

Thos. McCrae, Associate Professor of Medicine, Johns Hopkins University, Baltimore.

Lewis G. Cole, New York City.

Benson P. Cohoe, Assistant Physician to Johns Hopkins Hospital, Baltimore.

Harry P. Lyle, Surgeon to St. Luke's Hospital, New York City.

J. C. Meakins, Pathologist to the Presbyterian Hospital, New York City.

Hermon Sanderson, Detroit.

George E. Armstrong, Professor of Surgery, University of McGill, Montreal.

A. E. Garrow, Associate Professor of Surgery, University of McGill, Montreal.

John W. Stirling, Montreal.

Campbell Howard, Assistant in Medicine, University of McGill, Montreal.

Colin K. Russell, sometime Chief Resident Officer at the National Hospital, Queen's Square, London; Assistant in Medicine, University of McGill, Montreal.

Time Limits—Papers read in Sections, fifteen minutes. Discussions, in Sections, five minutes. Discussions, in General Sessions, ten minutes.

Membership—How Obtained.

Any regular practitioner of the Province in good standing is eligible for membership. Secure from the Treasurer a blank membership form, have your application endorsed by two members of the Association, deposit it and two dollars, the annual fee, with the Treasurer. The application must come before the Committee on Credentials for final acceptance.

Railway Arrangements.

The Committee have secured the regular convention rates upon the lines of the Eastern Canadian Passenger Association from points east of and including Port Arthur. Ask your railway agent for a Standard Certificate as a member of the Ontario Medical Association, and buy a full single first-class fare ticket to Hamilton. On arrival hand the certificate to the Secretary. The Passenger Association will have a special agent at the buildings at noon, each day, to supervise the certificates, to cover the cost of which a fee of 25 cents will be charged. If 50 members, bearing certificates, are present who have paid 50 cents or more for their tickets to Hamilton, you will be returned for one-third the lowest regular first-class fare on presenting your certificate, duly signed and vised. If 300 are present you will be returned free; but if less than 50, two-thirds will have to be paid. Let each member coming to the city take the time to secure a standard certificate, and thus help those coming from a greater distance to make sure of their reduced fares.

PROPOSED PROGRAMME.

The final order of papers will be announced in the Programme to be sent out early in May.

TUESDAY, MAY 26TH.—MORNING SESSION.

Medical Section—

"Vaccine Therapy in Medicine and Surgery."—W. L. Silcox, Hamilton. Discussion to be led by W. Gibson, Kingston, and G. W. Ross, Toronto.

"Diphtheria Antitoxins as Prophylactic and Curative Agents."—W. Goldie, Toronto.

"Some Points in the Treatment of Puerperal Septicemia."—Adam H. Wright, Toronto.

"Neurasthenia from the Etiological Standpoint."—H. B. Anderson, Toronto.

Paper—Title to be sent.—Benson Cohoe, Baltimore.

Paper—Title to be sent.—A. Dalton Smith, Mount Forest.

Surgical Section—

"The Treatment of Dislocations of the Acromial End of the Clavicle."—L. W. Cockburn, Hamilton.

"Method of Treatment of Sprained Ankle."—J. Sheahan, St. Catharines.

"Obstruction due to Cancer of the Large Bowel."—H. A. Bruce, Toronto.

"The Third Dimension in the Visualization of Surgical Procedures (with Lantern Slides)."—N. A. Powell, Toronto.

"The Hyperemic Treatment."—H. P. Lyle, New York City.

Clinic and Luncheon at the City Hospital.

TUESDAY AFTERNOON—GENERAL SESSION.

President's Address.
Symposium—Arteriosclerosis.
Pathology—J. J. Mackenzie.
Cerebral Manifestations—Colin K. Russell, Montreal.
Aortic Arch Manifestations—Thomas McCrae, Baltimore.
Muscle Manifestations—Harry C. Buswell, Buffalo.
Visceral Manifestations—J. A. Bauer, Hamilton.
Treatment—H. A. McCallum, London.

TUESDAY EVENING.

Smoking Concert at the Yacht Club, Hamilton Beach, under the management of the Committee on Arrangements, who are providing an entertaining programme.

WEDNESDAY, MAY 27TH.—MORNING SESSION.

Medical Section—

"Remarks on the Duties of the Medical Examiner in Life Insurance."—G. S. Glassco, Hamilton.

"Some Complications of the Puerperium. Report of a Case."—J. R. Stanley, St. Mary's.

Paper—Title to be sent.—R. J. Dwyer, Toronto.

Paper—Title to be sent.—J. C. Connell, Kingston.

"Hypodermic Anesthesia."—D. Dunton, Paris.

"Obstetrical Technique."—Frederick Fenton, Toronto.

"The Treatment of Pneumonia."—George Hodge, London.

"A Fatal Form of Eclampsia."—K. C. McIlwraith.

"Missed Abortion."—R. Ferguson, London.

Surgical Section—

"Lateral Sinus Suppuration Compared with Cerebellar Abscess."—J. P. Morton, Hamilton.

"Exstrophy of the Bladder. Report of a Case."—F. N. G. Starr, Toronto.

"Report of an Extraordinary Case of Foreign Body in the Bladder."—Edwin Seaborn, London.

"Mechanical Ileus—Operation, Recovery. Remarks on the Treatment."—George T. McKeough, Chatham.

"Ulcer of the Stomach."—W. E. Olmsted, Niagara Falls.

"Transplantation of the Omentum in Hepatic Cirrhosis."—Edmund E. King, Toronto.

"The Absurdity of Quarantine in Cases of Small Pox."—H. Sinclair, Walkerton.

WEDNESDAY AFTERNOON.—GENERAL SESSION.

"Address in Surgery."—Charles L. Scudder, Boston.

"Gangrene and Abscess of the Lung."—George E. Armstrong, Montreal.

"Results of the Bier-Klapp Treatment of Tuberculous Sinuses and Joints at the Hospital for the Ruptured and Crippled, New York City."—Virgil P. Gibney New York City, and C. E. Preston, Ottawa.

BUSINESS SESSION.

Reports of Committees, election of officers, etc.

WEDNESDAY EVENING.

The Annual Dinner, to be given in the Royal Hotel, at which the members will be the guests of the medical men of Hamilton.

THURSDAY, MAY 28TH.—MORNING SESSION.

Medical Section—

"The Opsonic Treatment of the Diseases of the Skin."—D. King Smith, Toronto.

"Malignant Endocarditis."—J. T. Fotheringham, Toronto.

Paper—Title to be sent.—A. R. Gordon, Toronto.

"A Plea for Rational Therapeutics."—George Acheson, Galt.

"Some Points in the Diagnosis and Treatment of Diabetes Mellitus."—Campbell Howard, Montreal.

"The Treatment of Appendicitis."—G. R. Cruickshank, Windsor.

"Rheumatism."—J. C. Meakins, New York City.

Paper—Title to be sent.—W. P. Caven, Toronto.

"Mouth Breathing."—John Hunter, Toronto.

Surgical Section—

"Pyelonephrosis in Pregnancy."—J. F. W. Ross, Toronto.

"Duodenal Ulcer."—A. E. Garrow, Montreal.

"Paper"—Title to be sent.—H. Sanderson, Detroit.

"Pancreatic Cyst."—D. E. Mundell, Kingston.

Paper—Title to be sent.—John W. Stirling, Montreal.

"The Surgical Treatment of Compression Paraplegias."—A. Primrose, Toronto.

"The Treatment of Acute General Septic Peritonitis without Drainage."—C. F. Moore, Toronto.

THURSDAY AFTERNOON.—GENERAL SESSION.

"Address in Medicine."—Charles G. Stockton, Buffalo.

"X-Ray Diagnosis in Medicine and Surgery, with Lantern Slide Demonstration."—Lewis G. Cole, New York City.

"Psychiatry in Relation to General Medicine."—C. K. Clarke, Toronto.

BUSINESS SESSION.

Unfinished business: installation of officers.

STANDING COMMITTEES.

On Credentials.—W. O. Boyd, Bobcaygeon; W. T. Connell, Kingston; Murray McFarlane, Toronto; W. J. Hickney, Ottawa; and M. Stalker, Walkerton.

On Public Health.—C. J. Hodgetts, Toronto; D. H. Arnott, London; Emerson Bull, Lambton Mills; J. W. S. McCullough, Aliston; Ira Freel, Stouffville; A. E. McColl, Belleville.

On Publication.—John Hunter, Graham Chambers, D. J. Gibb Wishart, George Elliott and H. S. Hutchison, Toronto.

On By-Laws.—Alex. Taylor, Goderich; W. J. Charlton, Weston; W. T. Parke, Woodstock; T. D. Meikle, Mount Forest; J. Lindsay, Guelph; C. J. Hastings, Toronto.

On Ethics.—H. T. Machell, Toronto; H. A. McCallum, London; Geo. T. McKeough, Chatham; John Caven, H. J. Hamilton; A. A. Macdonald, Toronto; H. S. Bingham, Cannington.

Advisory.—Daniel Clark, Toronto; J. H. Richardson, Toronto; J. A. Temple, Toronto; W. H. Moorhouse, London; R. A. Reeve, Toronto; R. W. Bruce Smith, Brockville; F. Le M. Grasett, Toronto; Wm. Britton, Toronto; W. J. Gibson, Belleville; A. H. Wright, Toronto; Angus McKinnon, Guelph; N. A. Powell, Toronto; J. C. Mitchell, Enniskillen; J. F. W. Ross, Toronto; Wm. Burt, Paris, and G. A. Bingham, Toronto.

Temporary Committees.

On Audit.—D. G. Storms, Hamilton; W. J. McNicholl, Hamilton; Wallace Scott, Toronto; J. A. Dickson, Hamilton.

On Necrology.—A. Dalton Smith, Mitchell; G. R. Cruickshank, Windsor; J. D. Courtenay, Ottawa; D. Hoig, Oshawa; James Russell, Hamilton.

On Papers and Business.—R. R. Wallace, Chairman; J. A. Bauer, J. W. Edgar, J. P. Morton, G. S. Glassco, J. Heurner Mullin, L. W. Cockburn, D. G. Storms.

On Arrangements.—A. B. Osborn, Hamilton, Chairman; G. S. Rennie, H. S. Griffin, G. S. Glassco, J. H. Mullin, A. E. Malloch, J. E. Davey, E. P. O'Reilly, F. E. McLoughlin, J. T. Rogers, Jas. Anderson, F. Coleman.

Special Notice.

Through the courtesy of Mr. J. J. Morrison, the President, and the Committee of the Hamilton Golf Club, the privileges of the Club House and Links are extended to the visiting members of the Association. Golf enthusiasts are requested to bring their clubs.

The privileges of the Thistle Club are extended to the visiting members of the Association by the courtesy of Mr. T. G. Haslett, the President, and Dr. H. A. Wardell, the President of the Bowling Club. Bowls will be provided for members desirous of trying their skill on the green.

How to Get to the Place of Meeting.

Members arriving by the T.H. & B. or by the C.P.R. may walk directly eastward along Hunter Street, upon which the depot is, to Victoria Ave., a matter of five minutes' walk, or may take the King Street East Cars.

Those arriving via G.T.R. will take cars to King Street, transfer to King Street East, and thence to Victoria Avenue.

Streamers will direct you to the Normal College Building.

Hotels and Boarding Houses.

Royal Hotel, accommodation for 100 guests, $3.00 to $3.50 per day. American plan.

Waldorf, accommodation for 100 guests, $2.00 to $3.00 per day. American plan.

Terminal, accommodation for 40 guests, $2.00 per day. American plan.

Hotel Cecil, accommodation for 50 guests, $2.00 per day. American plan.

Telegrams, Letters, Etc.

These may be directed to the care of the Secretary, Normal College, Victoria Ave. South, where they will be held for you at the Bureau.

PROGRAMME OF THE CANADIAN HOSPITAL ASSOCIATION

Second Annual Convention, to be held in the Parliament Buildings, Toronto, on Easter Monday and Tuesday, April 20th and 21st, 1908.

Monday, April 20th.

2 p.m.—President's address, Miss L. C. Brent, Superintendent Hospital for Sick Children.

"How to Deal with Tuberculosis as a Social Problem."—Dr. W. J. Dobbie, Superintendent Weston Sanitarium. Discussion by: Drs. Gordon and Kendall, of Gravenhurst, and Dr. Holbrook, Mountain Sanitarium, Hamilton.

"The Milk Supply."—Dr. Helen MacMurchy, editor *Canadian Nurse*. Discussion by: Dr. Robertson, of Ottawa.

"Fumigation."—Dr. A. D. Macintyre, Superintendent Kingston General Hospital. Discussion by: Miss Miller, Lindsay.

Appointment of Nominating Committee.

8 p.m.—Reception by Miss Louise C. Brent, President of Association, at the Nurses' Residence, Hospital for Sick Children.

TUESDAY, APRIL 21ST.

9.30 a.m.—"Contagious Diseases in Relation to Hospital Management."—Dr. Chas. Sheard, Medical Health Officer. Discussion by: Miss Brent and Miss Matheson.

"Some Observations on European Psychiatric Hospitals."—Dr. C. K. Clarke, Superintendent Toronto Hospital for Insane. Discussion by: Dr. Ryan, of Kingston; Dr. Hurd, of Johns Hopkins Hospital; Dr. R. Bruce Smith and Dr. D. C. Meyers.

"The Hospital and the Public."—Del T. Sutton, Esq., editor *National Hospital Record*. Discussion by: J. W. Flavelle, Esq., LL.D., W. T. White, Esq., J. Ross Robertson, Esq., and J. W. Atkinson, Esq.

Report of Nominating Committee.

2 p.m.—"A New Typhoid Hopper."—H. E. Webster, Superintendent the Royal Victoria Hospital, Montreal.

"The Nursing of Incurable Patients."—Miss M. M. Grey, Superintendent Hospital for Incurables.

"The Proper Length of the Period of Study for Nurses."—Dr. H. M. Hurd, Superintendent Johns Hopkins Hospital, Baltimore. Discussion by: Miss Patton, Miss Tolmie and Miss Chesley.

Physician's Library.

Diseases of the Heart. By Prof. Th. von Jurgensen, of Tubingen; Prof. Dr. L. Krehl, of Greifswald; and Prof. Dr. L. von Schrotter, of Vienna. Edited, with additions, by George Dock, M.D., Professor of Medicine, University of Michigan, Ann Arbor. Octavo of 848 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1908. Cloth, $5.00 net; half morocco, $6.00 net. Canadian agents, J. A. Carveth & Co, Ltd, Toronto.

This is a translation of the heart sections of Nothnagel's "Specielle Pathologie und Therapie." The excellence of the system of internal medicine issued under the editorship of Professor Nothnagel is recognized by German physicians and those of other nationalities who are sufficiently familiar with German to read the original works. Unfortunately, the great majority of English physicians are unfamiliar with the German language and consequently are unable to benefit themselves by reading the original monographs. The translation, therefore, of this, as well as of the other volumes of the system, is a great addition to medical literature in the English language.

The translation of the monograph before us is under the charge of Professor Dock, University of Michigan. The contributors are Professors von Jurgensen, von Schrotter and Krehl, all of whom are well known for their scientific attainments and wide clinical experience.

The Production and Handling of Clean Milk. By Kenelm Winslow, M.D., M.D.V., B.A.S. (Harv.), formerly Instructor in Bussey Agriculture Institute and Assistant Professor in the Veterinary School of Harvard University; author of a "Text-book on Veterinary Materia Medica and Therapeutics"; Chairman of the Committee on Milk of the Washington State Medical Association, etc. New York: William R. Jenkins Co., publishers, 851-853 Sixth Avenue.

The production of clean milk, which concerns many, particularly the consumer, is at the present day prominently before the public in every walk of life. The medical profession, always on the alert to prevent as well as to cure disease, takes an active part in the campaign. Physicians will, therefore, be intensely interested in a book which presents the question to them in its many aspects. As the writer of this book is so well qualified to instruct upon the subject, it can be taken for granted that his work has been admirably done in its preparation. It is freely illustrated, excellently gotten up and written in a clear and intelligent manner.

Woman—A Treatise on the Normal and Pathological Emotions of Feminine Love. By BERNARD S. TALMEY, M.D., Gynecologist to the Yorkville Hospital and Dispensary; former Pathologist to the Mothers' and Babies' Hospital, etc., New York. For Physicians and Students of Medicine and Jurisprudence. With twenty-three drawings in the text. Second enlarged and improved edition. Price, $3.00. New York: Practitioners' Publishing Co.

That a second edition of this unique book in medical literature has been called for in ten months' time shows that there has been an appreciation of it on the part of the medical public. It certainly fills a want in medical literature. To read and understand in this book is better than teaching and instruction imparted by the professor. Medical students would be far too apt in classes to receive the instruction with levity, no matter in what seriousness it was delivered. The young man goes into practice poorly equipped in this sort of knowledge. Probably many suffer needlessly thereby. That is nicely corrected by Dr. Talmey's book.

Treatment of Internal Diseases. By DR. NORBERT ORTNER, of the University of Vienna. Edited by NATHANIEL BOWDITCH POTTER, M.D., Visiting Physician to the New York City Hospital, and to the French Hospital; Instructor in Medicine, Columbia University. Translated by FREDERICK H. BARTLETT, M.D., from the Fourth German Edition. London, Philadelphia, Montreal: J. B. Lippincott Company. Octavo, 658 pages. Cloth, $5.00 net.

The scope of this book is treatment, not prophylaxis, only so much of the pathological physiology of the diseases being discussed as bears upon their rational treatment. The reader is shown the importance of mechanical, dietetic, climatic, and all extra medicinal methods, then the applicability of certain drugs, their respective advantage, disadvantage, and limitations, with useful prescriptions from the author's own experience and that of others, leaving the reader better armed to meet casual indications and the various contingencies which arise and require symptomatic treatment.

One of the most attractive features of the book is the citation and description of numerous climatic resorts, the discussion of hydrotherapeutics and all extra medicinal measures, and the judicious reasons for the application of those selected.

Dr. Bartlett has translated the German text into idiomatic English, thoroughly Americanizing the book and without losing the spirit or the details of the original. Climatology, hygiene and dietetics have been adapted to the needs of the American practitioner, and the prescriptions to conform to the American Pharmacopœia. Where the editor's views differ from the author's, he has selected suggestions from the American or English clinicians. Such additions have been enclosed in brackets.

It contains a carefully selected list of American resorts and a brief mention of their most important features, with a tabulated list of drugs, many of the tables including those of the various iron compounds, of the iron-containing waters, and of arsenical water, which will prove very useful for ready reference.

Surgery: Its Principles and Practice. In five volumes. By sixty-six eminent surgeons. Edited by W. W. Keen, M.D., LL.D., Hon. F.R.C.S. (Eng. and Edin.), Emeritus Professor of the Principles of Surgery and of Clinical Surgery, Jefferson Medical College, Philadelphia. *Volume III.* Octavo of 1132 pages, with 562 text illustrations and 10 colored plates. Philadelphia and London: W. B. Saunders Company, 1908. Per volume: cloth, $7.00 net; half morocco, $8.00 net. Canadian agents, J. A. Carveth & Co., Ltd., Toronto.

The fact that the Mayo brothers, Moynihan, Edmund Owen, Kocher and Mayo Robson contribute to this volume makes it a valuable one. The surgery of the head, neck and thyroid gland diseases is elaborately treated of, as is that of the stomach, liver, gall-bladder, biliary ducts, pancreas and spleen. The illustrations are fine and numerous, quite a number being colored. Should the remaining volumes come up to the standard of the first three, Keen's "Surgery" will assume front rank amongst works of a similar class.

Dominion Medical Monthly

And Ontario Medical Journal

EDITORS:
GRAHAM CHAMBERS, B.A., M.B. WALTER McKEOWN, B.A., M.D.

ASSOCIATE EDITOR:
T. B. RICHARDSON, M.D.

MANAGING EDITOR:
GEORGE ELLIOTT, M.D.

Published on the 15th of each month. Address all Communications and make all Cheques, Post Office Orders and Postal Notes payable to the Publisher, GEORGE ELLIOTT, 203 Beverley St., Toronto, Canada

VOL. XXX. TORONTO, APRIL, 1908. NO. 4.

COMMENT FROM MONTH TO MONTH.

The Physicians' Pedagogue.—The members of the medical profession in these parts, and a very considerable proportion of the laity at large, have recently been treated to some very (supposedly) sound advice by the editor of *The Globe.* This gentleman, an acknowledged master among the members of his profession, has seen fit to take it upon himself to make some very scathing remarks about the members of the medical profession in this Province, and more particularly about the Ontario Medical Council. He has endeavored to prove—and has, doubtless, quite succeeded, in so far as he is personally concerned—that the Medical Council is guilty of gross negligence in that it has not caused the arrest, trial and summary punishment of certain doctors of physic, who are under suspicion of being guilty of the practice of criminal abortion.

Let it be granted in the start-off that the editor in question is sincerely desirous of bringing about real reform along the line he is indicating. Every intelligent member of society, lay or professional, will gladly wish him God-speed, and aid him to the best of his ability.

At the same time it seems to us there are certain requisites which are indispensable in the character of any moral reformer, viz:

1. He should be honest.
2. He should be consistent.
3. He should have sufficient mental acumen to enable him to distinguish between things which differ.

Let us, therefore, see to what extent our self-constituted mentor measures up to this standard.

In an article in the November issue of this journal—one which was mailed to him in a sealed envelope, and which may reasonably be supposed to have reached him, albeit so far as we are aware no notice was paid to it by him in the editorial columns of his paper—we respectfully drew his attention to the facts of the case, from the standpoint of the practitioner. Subsequent to this, other articles, similar in character to that referred to in our editorial of November, appeared in the editorial columns of *The Globe,* from which it was evident to us the reverend editor had ignored the facts of the case, as pointed out by us. Was this fair, or even honest? Does this gentleman ever realize the tremendous responsibility which rests on him, filling as he does the position of moral and political adviser to over 50,000 daily readers? It is not too much to say there are thousands of people in the lower walks of life who glean their chief ideas, moral and political, from the Bible and *The Daily Globe.* What, then, shall be said of a great moulder of public opinion who consciously misapplies the facts in any given case, and thus creates a bias, which is calculated to do infinite injustice, if not distinct harm, to a considerable portion of the community?

Is it well that the editor of a paper should cry out against the sins of a profession, which, as a body, has nothing to blush for, while at the same time that paper is publishing advertisements of quack remedies, which purport to bring about cures, which every physician, and most intelligent members of the laity, know full well are beyond the bounds of possibility? Is this consistent? But, it may be urged, the admission of these advertisements rests with the advertising department, and so the matter in no wise concerns the lofty fashioner of faiths and fancies—the editor-in-chief. If he be not cognizant of such improper advertisements, he should be, and it would be as fatuous for him to disclaim his share of responsibility in this contemptible method of making money, as it would be for the quack to justify the failure of his nostrum to cause a cure, because the ignorant purchaser thereof had failed to properly diagnose his own ailment. A little wholesome backbone on the part of the press, in refusing to advertise such palpable methods of procuring money from the public under false pretences, would meet with the grateful approbation of a large part of the community and aid materially in stamping out this heartless method of imposing on all too credulous humanity.

In the November issue already referred to, we drew the reverend editor's attention to the fact that " it is *not* the function of the Medical Council to try, sentence and execute or imprison the medical criminal, but rather that this duty devolves upon the legal officers of the Crown." And still we are treated to the ridiculous spectacle of our would-be moral mentor insisting that the Medical Council should arrest and duly punish such offenders; and herein it would seem that the gentleman is unable to distinguish between things which differ. In other words, he is barking up the wrong tree. Does he know what is meant by the term " criminal offence " ?

He has been good enough to say the whole medical profession is on trial (because of the supposed offences of the few). This is an erroneous and wholly unwarranted charge to make, and a splendid specimen of gratuitous insolence. Lives there a medical man who would be such a consummate ass as to charge the whole ministerial profession with soiled skirts, because some few of the brethren may have fallen from grace? The charge is not alone unjust—it is unnecessarily stupid.

In closing, we beg to repeat what we said in our former article:

" The Medical Council of Ontario is doing its utmost to maintain a clean profession in this Province, and is also doing its utmost to safeguard the interests of the people at large, by keeping out quacks, and God knows what ' pathies,' as well as by keeping up a high standard to which all its graduates must conform. If the public and the press do not possess the brains to appreciate this fact, so much the more are they to be pitied. Such an unwarranted attack on our professional honor is as groundless as it is cowardly; but, then, after all, the dog sometimes bites the hand of the master who feeds it!"

The Ontario Medical Association.—The attention of the profession is again called to the Twenty-eighth Annual Meeting of the Association, which will be convened in the Normal College Building, Victoria Avenue South, Hamilton, on the 26th of May next and continue in session for the two succeeding days.

The provisional programme has been distributed throughout the Province. The prominence given to the scientific side of the meeting, and this will be of exceptional merit, will not be permitted to dwarf its social aspects. At the smoking concert at the Yacht Club, Hamilton Beach, on Tuesday evening, there will be a most entertaining programme presented. On the succeeding Wednesday at the Royal Hotel the visiting members will be the guests of the medical men of Hamilton at dinner.

Outside members who are fond of golf are asked to take their clubs, as the privileges of the Hamilton Golf Club have been extended to all visitors, through the courtesy of the President, Mr. J. J. Morrison, and of his committee. Members who are visiting the meeting are also extended the privileges of the Thistle Club, by courtesy of the President, Mr. T. C. Haslett, and of the President of the Bowling Club, Dr. H. A. Wardell. Bowls will be supplied.

A luncheon at the City Hospital has been arranged, following the morning sessions on Tuesday. Other entertainments are under consideration and full announcement made in the final programme, which will be issued in May. The Committee on Arrangements hope that visiting members will bring their wives and daughters, who will be happily cared for by the local ladies, and they trust that this may be one of the features of the meeting.

The Preliminary Programme of the Ontario Medical Association's annual meeting at Hamilton appears on another page. The Programme Committee is to be congratulated upon the excellent character of the papers to be presented. There is to be a number of able men from the United States, and what is particularly happy is that there are to be several of Montreal's leading physicians and surgeons present to present papers and take part in the discussions. It is important to emphasize the need of a large representative meeting, as the constitution is to be revised to provide for affiliation with the Canadian Medical Association. It is hoped county and city as well as district societies will be well represented.

A Public Health Department for Canada is the title of a pamphlet sent out from the office of the General Secretary of the Canadian Medical Association. It has been sent to the press, medical and public, members of the House of Commons, the Senate, provincial secretaries of health boards, and medical societies all over Canada, as well as to medical health officers in the large cities and to professors in the universities having to do with public health matters. As the question is to come up for discussion in the House of Commons again this session, especially as there are several members interested in it other than those belonging to the medical profession, medical societies and the medical press and all others should early press the matter on the attention of members of the House. Recent events at Ottawa suggest the possibility of the reorganization of more than one department of the government in the immediate future; and the opportunity thus presented to the medical profession of Canada should be seized eagerly and prosecuted with vigor and "sticktoitiveness." It may be considered wise on the part of the Special Committee on Public Health to again press the matter upon the Prime Minister and his colleagues, and especially so now that the Canadian Association for the Prevention of Tuberculosis will join hands with the Canadian Medical Association in urging the Government to consolidate the various branches of the medical service, when the former meets in Ottawa next June. If so, we can only urge upon the attention of the profession, and particularly upon those directly engaged in public health matters, the desirability of their presence and support at that meeting.

The Report of the Ontario Commission on Insanity is before us. It shows that the Commission went carefully and very fully into the methods employed in caring for and treating the insane in different university centres in Great Britain and Europe. Particular attention was given to the investigation of the organization and methods and equipment of psychiatric hospitals and psychiatric clinics, and the most important of the Commission's recommendations is set forth in these words: The psychiatric hospital being the ideal institution for the treatment of all acute forms of insanity, we would recommend the establishment, as necessity arises, of such hospitals at university centres. The other recommendations are: The enlargement of the present staffs of physicians and nurses; the isolation of the tuberculous; the proper care and treatment of insane criminals. Regarding the first of these, we would express the hope that the appointments of physicians be made purely on merit and fitness and not on any political pull, and that the advice of the heads of the institutions be followed rather than that of the ward patronage committee. The recommendations as to the tuberculous and also the criminal insane are abreast of the times and should be rapidly adopted by the provincial authorities. Reference is made to those who have a "horror of the name 'asylum.'" If we mistake not, hospitals for the insane perpetuate this "horror" largely by continuing themselves to carry it on their letter paper, make mention of it in official communications, as well as in the writings of those engaged in this branch of medicine. If the word were quietly dropped and never mentioned in the medical press, in scientific publications and official documents, it would rapidly become obsolete in this connection.

What Word Do You Use when you find yourself chewing a bread label the cook has failed to remove? Some people when putting a stamp on a letter lick the stamp instead of the envelope. It would be interesting to know which the bread-labeller applies the tongue to. Who started this silly system anyhow? Who should put an end to it at once? There has been a great deal in the public press lately about light-weight bread and standard loaves. It shows that the people are alive to the question of the production and handling of the staff of life. Some dealers put wrappers on some loaves. Why not have them properly and fully dressed? Many years ago we advocated the putting of all loaves into paper bags. We are coming to it by degrees. Why not adopt it at once and be done with it?

Speaking of Bread leads us to say a word about "Gluten" breads and crackers. The elimination of the overcharged starchy cereals from the diabetic's diet paves the way for the gluten article. A writer in *Scientific American* says to take ten minutes and find out what gluten is. Obtain a tablespoonful of white flour, add water in a saucer and make your dough into a compact ball. Take it to the tap and let the water run on it through your hands. In ten minutes' time you have a nodule of yellow, firm, vegetable gum. Take and chew this gum for a couple of hours. It is smaller. The tap water washed away the large starch cells; the saliva, the infinitesimally fine starch cells. Take the small ball of gluten left to an analytic chemist. The report will be: Starch 15 or 18, gluten 85 or 82. The writer then argues that "where a case is a desperate one, and starch or no starch will turn the balance of life, it is very easy to procure and analyse a sample of the flour or cracker of "gluten" the patient is to use. He says such a course would save a physician many a perplexing hour, and maybe an esteemed patient now and then.

The Use of the Cinematograph in Medicine for recording and illustrating movements of patients, victims of various nervous diseases, has been successfully employed, says Dr. H. Campbell Thomson in a recent issue of *The Lancet*. Photographs taken at the rate of sixteen in a second of time clearly show these movements and have been utilized for imparting instruction to students. The cinematograph has been used by some eminent surgeons, particularly one in Paris, showing mostly the actions of the operator, and it may be that there will open up a field in this direction which, while interesting and delightful, may prove of useful help to the student of medicine, particularly in class teaching. It may in time supersede to some extent the lantern.

Editorial Notes.

Phimosis and Circumcision in Infants.—Phimosis is nearly always present at birth, and is due to a small preputial orifice as well as to adhesions between the glans and prepuce. The glans, in growing and during the erections which occur with difficult defecation in infants, gradually dilates the preputial orifice, and breaks up the adhesions between glans and prepuce, a process which is usually not complete until the eighth year. In other words, a certain degree of phimosis is physiological in early childhood. Many reflex phenomena, including most of the functional diseases of childhood, have been attributed to it, and circumcision has been recommended for their cure. That the symptoms are really not caused, at least not always caused, by the phimosis, is proved by the fact that in at least one-half the cases they are not relieved. In a plea for fewer uncalled-for circumcisions, appearing in the *Correspondenz-Blatt fur Schweizer Aerzte* of Dec. 1, 1907, G. Rheiner mentions a few of the indications and contraindications for the operation in early childhood. He considers a phimosis pathological only when it acts as a mechanical obstacle in urination. The urine is passed in a thin stream, or only a drop at a time, the space between glans and prepuce balloons out, the urine decomposes in this space, and is thus liable to cause balanitis. The straining at urination is liable to be followed by hernia or prolapsus ani, the balanitis incites to masturbation. These patients of course require circumcision if the prepuce cannot be retracted after any adhesion between it and the glans have been broken up. On the other hand, there are patients who have difficulty in urinating which is attributed to a phimosis though it is really due to other causes. Thus in cystitis and balanitis the infected urine or purulent discharge will cause an inflammation of the prepuce which renders urination painful, and this may lead to voluntary retention while there is no mechanical hindrance to the flow of urine. In such a condition circumcision, which is often advised, is really strongly contraindicated, as the wound readily becomes infected, thus aggravating the symptoms and possibly causing sepsis. In patients in whom small ulcers follow herpes preputialis similar urinary symptoms may set in, but here, too, a circumcision is contraindicated. Rheiner also draws attention to conditions which are often attributed to phimosis and in which a circumcision will do no good, though it may not cause any harm. Thus it is quite natural to attribute urinary symptoms due to a stricture (congenital or after an early urethritis) to phimosis. A more frequent source of error is the condition in which urine is passed in small quantities, its voidance being accompanied by bearing down pains. This condition exists in children troubled with constipation due to faulty diet or to fissures about the anus, and the liability to error in diagnosis is increased by the erection reflexly caused by the constipation. for during erection the small preputial orifice is more noticeable. It can readily be understood that a circumcision will not cure these patients.

In many children the physiological phimosis seldom causes any trouble, and if it does circumcision is not always necessary as one can frequently relieve the condition by retracting the prepuce after breaking up the adhesions between it and the glans. The best treatment lies in prophylaxis. We can avoid all future trouble by retracting the prepuce over the glans immediately after birth. This usually requires slight stretching of the preputial orifice, most easily accomplished by inserting a closed scissor artery forceps into the orifice and then separating the blades. Thus sufficient dilation is brought about without causing any bleeding, after which the adhesions between glans and prepuce are broken up and the latter is easily retracted. After the removal of any smegma present, a drop of oil is placed on the glans and the skin is drawn forwards. The skin should then be drawn over the glans daily until there is no longer a disposition to a recurrence of the adhesions. This little manœuvre is probably not practised by many obstetricians, but it cannot be too strongly recommended, as it does no harm and may prevent much trouble.—*Med. Rec.*

News Items.

Dr. John Parke, of Arcola, Sask., is dead at Feversham, of heart failure.

Dr. Fred Guest, St. Thomas, has been appointed coroner for Elgin County.

Cancer caused 50 deaths in Hamilton last year, and 10 to date this year.

Dr. Hopkins, of Marshville, formerly of Dunnville, has been appointed a coroner.

Dr. Spohn has resumed practice at Penetanguishene, with his son, Dr. Howard Spohn.

Dr. W. J. Graham, formerly of Ashgrove, has moved from Tonawanda to Brooklyn, N.Y.

Dr. Stanley Burns, of Caledonia, has accepted a position as assistant to Dr. Jacques, Jarvis.

Dr. D. A. Shirres, Montreal, has gone to Jamaica.

Dr. J. H. O. Lambert, Winnipeg, will go to Europe in May.

Ontario hospitals are to receive an increased grant from the Government.

Dr. Chas. C. Gurd, Montreal, will spend the next five months in Germany.

Vancouver is considering the adoption of the medical inspection of its schools.

Dr. Wm. B. Hopkins, of Hamilton, has been appointed associate coroner for Wentworth County.

Banff objects to the establishment of a sanatorium for consumptives in the National Park bounds.

Dr. Joseph M. Jory, of St. Catharines, has been appointed an associate coroner for Lincoln County.

Dr. Murdoch Chisholm, Halifax, has succeeded Dr. H. L. Dickey as immigration inspector at that port.

New buildings, to cost $60,000, will be erected in British Columbia for the accommodation of the insane.

Dr. T. H. Whitelaw, of Edmonton, Alta., has been appointed to the position of Medical Health Officer of Edmonton, at a salary of $2,000.

Dr. Douglas G. MacRobbie, formerly of Shelburne, has disposed of his practice at Victoria Harbor, and is now located at Hamilton.

Health Officers have been appointed by the Canadian Government along the Minnesota and North Dakota border to enforce quarantine regulations.

Dr. McCollum, late of London, who succeeds Dr. Spohn as Superintendent of the asylum at Penetanguishene, has taken charge of that institution.

The Quebec Board of Health now excludes from the schools of that Province pupils affected with scabies and pediculi.

The cigarettes consumed in Canada in 1906 amounted to 277,000,000; for the nine months ending March 31st, 1907, the number was 275,000,000.

Dr. John Sloan and wife have left Blyth for California, where they will visit for a couple of months, whence they will journey to Nome, Alaska.

Dr. R. W. Irving, late of Gananoque, Ont., has been appointed Superintendent of Tranquille Sanitarium for Incipient Consumption at Kamloops, B.C.

Dr. J. F. Cattermole, of Toronto, formerly of Milverton, has been appointed to the position of assistant physician at the Penetang Asylum for the Insane.

A HYGIENIC INSTITUTE, to cost $30,000, is to be erected at London, Ont. The Ontario Government contributed $50,000, the balance being for equipment. The City of London gave the land free.

DR. AUSTIN HUYCKE, Cobourg, left on Tuesday for New York to take a post-graduate course in the New York City Hospital. After finishing his course he will go to British Columbia to practise his profession.

DR. UNSWORTH, Hamilton, physician in charge at the Consumptives' Sanitarium on the Mountain, has resigned and intends going abroad for a year to take up hospital work. His successor has not yet been named.

DR. A. T. WATT, Superintendent of Quarantine for British Columbia, has returned to Victoria from Seattle, where he was investigating the work being done to combat the outbreak of bubonic plague in that city.

DR. W. C. USHER, son of Mr. William Usher, Wicklow, was highly successful in his examinations for the position of house officer for the Rhode Island General Hospital in Providence. Duties to commence July 1st.

THE Canadian Association for the Prevention of Tuberculosis, at its recent meeting in Ottawa, decided to appoint a medical travelling secretary, and also to urge the Dominion Government to establish a Department of Public Health.

DR. K. D. PANTON, son of Mr. Wm. Panton, Milton, has passed his third and final examination at London, England, for the degrees L.R.C.P. and M.R.C.S. On his return he is likely to practise at Portland, Oregon, or Vancouver, B.C.

CANADIAN MEDICAL ASSOCIATION.—The different sections of the Canadian Medical Association are busily at work preparing programmes. There are to be sections in General Surgery, General Medicine, and one session in each of the following: Eye, Ear, Nose and Throat, Obstetrics and Gynecology, Public Health, Military Surgery, Mental Diseases, Pathology. The dates of the meeting are 9th, 10th and 11th of June; the place of meeting, Ottawa.

Dr. T. B. Richardson, our Associate Editor, has recently been advanced to the rank of Major in the Canadian Army Medical Service, and appointed Assistant Surgeon to the Toronto General Hospital, in the service of Dr. George A. Bingham.

Dr. and Mrs. J. T. Mullin celebrated the fiftieth anniversary of their marriage on Tuesday of this week. Fifty years ago they were married in Toronto, after which they settled at St. George. From there they moved to Tullamore, where they resided for a few years. They have resided continuously in Brampton for nearly forty years.

We regret to have to announce the untimely death of Dr. Archie H. Anderson, of Webbwood, Ont., at the early age of 28 years. Dr. Anderson was one of the popular students in the last days of Trinity Medical College. He had served his country in the South African War. Drs. H. B. and D. M. Anderson, Toronto, were brothers of deceased.

Statistics gathered from medical men of Manitoba by Dr. Gordon Bell, Winnipeg, show tuberculosis to be on the increase in that Province. One hundred and five doctors replied out of 350 letters sent, and the replies showed 398 cases in the Province. From these, Dr. Bell concludes there are 796 cases in the Province.

Winnipeg is to have a by-law submitted to it to raise $225,000 for hospital purposes. It will be expended as follows: Isolation hospital, $100,000; morgue building, $15,000; hospital for tubercular patients, $40,000; maternity and children's hospital, $60,000. Last year the expenditure in connection with the Winnipeg General Hospital was $169,000.

Dr. A. A. Jackson, a Mono Mills young man, has bought out the medical practice of Dr. Lepper, of Bolton. Dr. Jackson, who practised for two years at Everett after graduation, has just returned to Ontario after taking a post-graduate course in the hospitals of London and Dublin. Dr. Lepper, who has practised in Bolton for twenty years, will remove to Toronto.

The students of the University of Pennsylvania Medical School have formed an organization the purpose of which is to acquaint the undergraduates with the workings of the American Medical Association, after which it is very closely modelled. The various student societies take the place of the State organizations and elect members to a House of Delegates, which transacts all the business of the association. An annual meeting is held, at which papers are read by chosen members, thus encouraging original research and a scientific spirit. The organization is named the Undergraduate Medical Association of the University of Pennsylvania and already has over two hundred and fifty members.

Publishers' Department.

THE *University Magazine* for April continues to be a most excellent quarterly. It is a credit to those who put it forth, and is a journal Canadians are, and will be, proud of in the future.

THE *Bloodless Phlibotomist* for February, 1908, has an interesting article on a new method of Treatment by Hyperaemia, by Dr. A. Lübbert, of Hamburg, Germany: How to treat a pneumonia patient, treatment of ulcers, pelvic diseases, facial neuralgia and broncho-pneumonia, by the well-known product, Antiphlogistine. The number is an especially good one.

THE Battle Creek Sanitarium System: Its History, Organization and Methods, is the title of a handsome, beautifully illustrated brochure, telling all about this world-famous institution. It tells vividly of the growth and expansion, as it does of the scientific methods and equipment installed.

MR. CULLEN ANDREWS BATTLE, head of the well-known house of Battle & Company, Chemists' Corporation, St. Louis, died on March 22nd. He had been in failing health for some months and had not been permitted to attend to his multifarious duties in connection with the large business interests of his company.

THE DR. HUTCHISON SANITARIUM, 218 Simcoe St., Toronto, is a new institution, which is devoted exclusively to the treatment and cure of liquor and drug habits. A gentleman who has for many years been a subscriber to this journal, and one whom we have known personally for several years, is in charge as medical director. This is Dr. J. Hutchison, who is an experienced general practitioner, and one who for several years now has been actively engaged in this branch of medicine. We are, therefore, in a position to say a good word for his institution, which we do with considerable pleasure. Dr. Hutchison very kindly showed our managing editor through his admirably appointed place, and there are several points which we would particularly call the attention of our readers to. The situation is an ideal one, but a minute's walk from the street car line on Queen Street. It makes a comfortable home, well lighted with electricity, the best hot-water system of heating, handsomely and comfortably furnished, and, therefore, combines arrangements of refinement and comfort. The club room, parlor and private rooms are all that could be desired, in fact we doubt if they could be improved upon. Of course, in a well-appointed institution, as this is, there is every facility for making life enjoyable and happy. Dr. Hutchison is a capable man for his work and the medical profession will find in him one both affable and courteous, anxious and willing to discharge his obligations to both patient and physician to the best of his ability. Indeed, it should be extremely satisfactory to the medical profession of this city that there is now an institution in their midst where this class of patient can be treated along the lines of ethical medicine. To those of our readers who are in the surrounding towns and cities, we may say that their patients sent in here will receive the very best care, treatment and attention, from the hands of a man who is experienced and qualified to attend them.

When you wish to prescribe a preparation of beef which will produce the effect which the assimilation of prime lean beef should produce, you may safely prescribe "Bovril."

"Bovril" is produced entirely from prime beef selected specially for that purpose. It presents the whole of the valuable properties of beef in a form which is easily assimilated. Every operation is carefully supervised, and scrupulous cleanliness is exacted. The preparation is guaranteed not only to be pure, but also to be of an absolutely uniform quality. That is, the component parts are always in a fixed proportion. There is always a certain percentage of the extractives of beef combined with another certain percentage of albumen, fibrin, and the other important elements of beef. This result is obtained by careful analysis at different stages in the course of manufacture, and by a final analysis of the finished product before it is filled into bottles.

It has been recognized by medical men that beef tea and extract of meat possess merely stimulative value. "Bovril" is unique in that it contains the nutritive as well as the stimulating elements of beef, and its uniformity of composition is a very strong recommendation from the medical standpoint.

173-175.

Dominion Medical Monthly

And Ontario Medical Journal

Vol. XXX. TORONTO, MAY, 1908. No. 5.

Original Articles.

THE TUBERCULOUS IMMIGRANT.*

By P. H. Bryce, M.D., Ottawa, Ont.

The Executive of the Association, in requesting me to discuss briefly the question of Tuberculosis in Immigrants coming to Canada, had not, I feel sure, any idea that a defence of the work done by the Medical Officers of the Immigration Department was necessary, but rather felt that I, as the Chief Medical Officer of that service, was naturally in a position to present any facts relating to this very important matter clearly before this Association, and through it before the people of Canada generally.

I have therefore to thank the Association for the honor conferred upon me, and shall endeavor to indicate the situation as it exists by referring to the immigrants during 1907, which had notably the largest immigration (196,143 being examined at seaports) to Canada ever arriving in any single year, and who came in any manner before the attention of public bodies, whether Federal, Provincial or Municipal, as being tuberculized. In addition to published reports, I have received answers from all provincial health officers, and from hospitals and charitable institutions, to a circular sent out to all such throughout Canada. From these replies I have been able to estimate very closely the number of immigrants who during 1907 became subjects of hospital treatment or official charity.

---

*Delivered before the Canadian Association for the Prevention of Tuberculosis.

The circulars asked for the name, age, sex, nationality, date of arrival in Canada, the date of entering any institution, and the final disposition of every case. From Ontario I received answers from 61 institutions; from Quebec, 18; from Nova Scotia, 9 answers; and 40 institutions reported upon in the Provincial Charity Report; 5 from Manitoba; 3 from Saskatchewan, included in a total of 12 cases reported by the Provincial Health Officer; 9 from Alberta; 7 from British Columbia, and one from the Yukon. Of these only 10 institutions in Ontario reported any cases, there being 21 in all; 7 in Quebec reported 66 cases; 3 in Manitoba reported 25 cases; 12 were reported from Saskatchewan; 3 from Alberta and none from either British Columbia, Nova Scotia or the Yukon; or, in all, 127 cases were reported. By examining the names of these, so far as given, I find that, apart from 11 who died, those who remained in the institutions for any length of time were mostly reported to the Minister of Immigration, and where they had arrived in Canada within two years, such were returned to their own countries and friends. In all, this number amounted to 59. In addition to this number coming under the direct purview of the Immigration Department, 16 more were debarred on examination at the seaports and were not admitted to Canada. As it will be remembered that under the Immigration Act, as amended in 1906, any immigrant who becomes a charge in any public instituion in Canada within three years after landing may be deported, and as 400 were deported during the eight months ending in November, 1907, in a total of 181,784, as compared with 925 on account of diseases in a total of 1,286,000 who entered the United States in the past fiscal year, it is apparent that the Act has been made use of to a very full extent. I have endeavored to analyze the cases dealt with by the Department, with a view to ascertaining the exact number who, from being unable to work very shortly after arrival, were evidently advanced cases on arrival; those who, though working for several months, became thereafter inmates of some institution or came under the notice of the Department, and the number who it would appear were well on arrival, but took the disease in Canada.

Divided up in this manner the results are:

Evidently tuberculized on admission to Canada	25
Probably	17
Not tuberculized	15
No particulars	1
Died in hospital	1

Of other cases not deported and regarding whom particulars were obtained, I found two recent arrivals died in Hamilton, both tuberculized on arrival; two died at Port Arthur within a year of arrival and two others with no particulars, in hospital; 4 Austrians died in St. Thomas hospital; 1 died at Lethbridge. Of 22 cases in their homes visited by the Margaret Scott Nursing Mission in Winnipeg, it is stated "that none were visited who had not had the disease before leaving the Old Country," but how many of the 22 visited came from the Old Country is not given. Of 61 cases of various forms of tuberculosis treated in Victoria Hospital, Montreal, not born in Canada, 18 had arrived in Canada within three years, and 4 were in Notre Dame, Montreal, all of whom had arrived within one year.

Thus, taking the exact figures, and others more or less exact, I think it may be said that at least 100 immigrants who came to Canada did, within two years, develop tuberculosis and become public charges, of whom more than 50 were probably tuberculized on arrival, 25 badly so, and 25 probably contracted the disease after arrival. Taking in round numbers 350,000 as the total immigrants from amongst whom, during 1906 and 1907, these immigrants came, it means that 0.3 of all immigrants, who were examined before admission to Canada, became tuberculized within two years. Out of this number, at least 25 were probably in so advanced a stage as to have been diagnosable if yet greater care had been taken by Medical Inspectors, but when it is remembered that this means but one in every 14,000 examined who was overlooked, and that specialists tell us that the average existence of the disease before it is diagnosed in office examinations is at least eight months, it is plain that the official sins of omission have not been very great.

Perhaps the immunity of immigrants from tuberculosis may be best comprehended by comparison with an ordinary Canadian community. I find that almost exactly 100 deaths occurred last year in Ottawa from pulmonary tuberculosis, and that, as modern exact satistics have shown that the average duration of cases of consumption in Great Britain and the United States is five years, this means in a population of, say, not more than 80,000, there were last year 500 cases, or 6.2 per 1,000, as compared with 0.3 immigrants, or 20 times as many.

Now, while I have shown by actual statistics how relatively small is the number of tuberculized immigrants, the fact does exist that of this number, a considerable proportion according to returns, actually knew they were tuberculized before coming to Canada, some indeed having been in hospitals or sanitoria mostly in England, while the larger proportion of those tuberculized were English. Others came, and in some instances were advised to come, with the hope that the climate would benefit them, or else came to relatives. In this we see nothing different from what physicians, parents and friends do amongst ourselves, in advising a change of climate and occupation for those who are *candidates for tuberculosis*, as Villemin calls them. Indeed, it is a very common practice in the east here for physicians to advise a change to Alberta or British Columbia, just as in former years patients were advised to go to Florida, Colorado, Arizona or California. If such then be the general practice here, we do not wonder that in the Old Country persons who are employed at indoor occupations are often advised to try Canada, the land of promise, both as a place to get well and to make a new start in life. And I am sure that none of us will object, provided always that it is understood distinctly that advanced cases do not come, and that those who do come here have means to maintain themselves for some months or a year in our climate. It will have been noted that all those deported have become public charges. One is inclined to go even further, and say that if delicate, over-worked young men in the Old Country, who only require outdoor life to make them strong, would come to our illimitable Western Provinces or the Laurentian forests, with funds enough to maintain themselves while getting well, we ought not to deprive them of this chance of life.

I am just returned from a month's visit to the several Western Provinces, and last year was driving for two months over illimitable prairies, where there is not more than three people to the square mile, and imagine I understand the meaning in terms of health of these immense areas, with their condensed oxygen, unlimited sunshine, and relatively higher altitudes, and can comprehend how my friends, the Health Officers of Manitoba, Saskatchewan and Alberta and British Columbia have been so energetic and successful in establishing sanitoria.

Near Kamloops, within the dry belt, Dr. Fagan has established a sanitorium, and within six months has thirty patients in old buildings and tents, and within a year or two will have on his 600 irrigated acres, and 8,000 of ranch land, room for several hundred patients to get well, and while doing so learn the agricultural and horticultural possibilities of the Province, and thereafter follow these in that lovely climate.

Dr. Seymour, Health Officer for Saskatchewan, is requiring, as a condition of getting a provincial grant, that each hospital arrange to receive a certain number of tuberculized patients in wards or hospital tents especially arranged for them, while Dr. Lafferty's Alberta Board is doing the same, while at the time searching for a sanatorium site, and outdoor camps are being established in the foothills of the Rockies. Already we have people little less than squatters on the Banff district sounding the tocsin, initiating the *tinnabulum sonum perpetuum* of the various wards of Ottawa City, lest the millions of mountain acres, which the Almighty has given Canada, shall be utilized for the health of the people instead of being held in the interests of a few land speculators, who happened to have camped there first. Manitoba has gone still further forward and has purchased a beautiful site near Ninette Lake, some 120 miles south-west of Winnipeg, whereon to erect a sanatorium for their people. The Government and people have conjointly raised a large sum for the purpose.

Now, while all this is being done by our Western Provinces for their own people, I think I see in all this progress a means whereby the Association may assist to carry out my day-dream of raising a fund, partly by public subscription, both in Canada and Britain, assisted by Government grants, whereby tubercular patients, as in France, who may not be doing well in our climate, may be transferred to another, assisted by this fund. Thus, there are many cases of the catarrhal type of disease, especially in young people with healthy hearts, who do not do well in our eastern moist climate, and could, with great advantage to themselves, be sent to the more elevated, drier, brighter and more reconstructive climates of the foothills and mountains; while, again, other cases, of the neurotic type, with irritable hearts and defective circulation, would be advantaged by coming east to the more sedative and less changeable climate of our Laurentians, and be guided back to health here. All that such a scheme requires is a business arrangement for carrying on this work, while making it a condition that all sanatoria receiving such patients would be open to such a Federal specialist officer as might be appointed to study the relations of climate and tuberculosis. These are but illustrations of what yet will be done in the scientific study of the protean types of this ubiquitous disease. Imagine our task! Based upon comparative statistics already given, some 50,000 persons will this year in Canada be enrolled in the ranks of the tuberculized. Money can be found for almost any conceivable scheme for prospective money-making: Money to construct railways; money to experiment with every kind of plant and grain, to see which will produce most crop; money to develop the best types of cattle and horses, and to protect their health; money for the propagation of fish and lobsters; money for the protection of our forests; money to bring in hundreds of thousands of prospective producers of wealth and national strength in the shape of immigrants! Though if in all these illustrations given, the single motive is not the development of the aesthetic and beautiful, not the mere student's love of enquiry in pure science, but rather the prosaic aim of money-making—the mere daily routine of utilitarianism—yet we may for a moment set aside our altruistic endeavors, forget the sweetness of giving of ourselves rather than receiving, as did Sir Launcelot in his search for the Holy Grail, stifle our desire to dry human tears, and in this matter apply the same practical, utilitarian arguments, and say that in the name of Canadian patriotism we insist that at least a part of this army of 50,000 tuberculized Canadians, who certainly will die within the next five years, if not assisted at an early stage in the disease to receive thorough sanatorium treatment, be given a chance to live and remain as an asset many times greater than any prospective wealth gathered from the labor of any 50,000 immigrants, and who, if saved from the advanced stages, will proportionately lessen the dangers of infecting annually another brigade of 10,000. They are Canadians! They are our fellow-citizens! They are our own flesh and blood! Surely our cities and rural places will do something much more to stem this ever-advancing tide of death, whereof our Provincial Governments, partaking yet more yearly of revenues from our growing wealth, will be active in legislating and making grants to aid in work in the cities and countries, and cannot we hope that our Federal Government, which is doing so much in all these other indicated fields, while granting so much to fill up our empty spaces with industrious healthy immigrants from other lands, will directly assist financially in this scheme, or some other, by which a momentum shall be given to the awakening of this day of promise, seemingly now dawning, for every Province in Canada.

No longer can the attitude be that of the Eaters, " who lie reclined on the hills like gods together, careless of mankind," but rather that having so many things to do that they forget, we shall now undertake this our last, our greatest task.

But I must not be too impatient, as an enthusiast for the coming of the Kingdom of Sanitation. Perhaps it may be like that other, which cometh not by observation. As Tennyson says, in "Love and Duty,"

"Wait and Love Himself
Will bring the drooping flowers of knowledge changed to fruit
Of Wisdom."

Or as our ever-sweet singer says,

"Have patience, I replied; Ourselves are full
Of social wrongs: This fine old world of ours
Is but a child yet in the go-cart.
Patience! Give it time to have its limbs—
There is a hand that guides!"

Clinical Department.

The Report of a Case of Retropharyngeal Abscess in a Girl Eleven Years Old.

HERBERT B. CARPENTER, M.D., Physician to the Medical Dispensary of the Children's Hospital, Philadelphia, in the *Archives of Pediatrics.*

As acute retropharyngeal abscess in children over three years is uncommon, I thought the following case of interest:—

Margaret W., aged eleven years. Her family history was negative. She was fed at the breast for six months, and afterward on modified milk. She had measles at four years, and whooping-cough at eight; otherwise was healthy, except for a tendency to catarrhal "colds."

During the first two weeks of March, 1906, the patient's entire household suffered from an epidemic of influenza. She was taken ill on the 6th of March, with high fever, sore throat, enlargement of the lymphatic glands of the neck, torticollis and general muscular pains. On the following day her tonsils were very much swollen, nearly closing the pharynx; the follicles were filled, and what little of the posterior wall of the pharynx could be seen exhibited a severe follicular inflammation. Within three days the inflammation and soreness began to subside, and at the end of a week the child seemed to have recovered except for torticollis and snoring at night. Inspection at this time showed a marked swelling of the posterior wall of the pharynx, a little to the right of the median line. On palpation, fluctuation was obtained. The posterior wall of the pharynx was pushed forward, and the abscess was just beneath the surface of the mucous membrane. She was seated in a chair facing a good light; the tongue was depressed; and, after cocainizing the parts, a bistoury, with its edge guarded by adhesive plaster (leaving about half an inch of the tip exposed), was introduced into the most prominent part of the tumor, and the incision enlarged from above downward. The head was thrown forward to allow the abscess to drain into a basin, and the cavity was washed out with Dobell's solution. The pain and rigidity of the muscles of the neck improved almost at once. The abscess healed within forty-eight hours. This abscess was probably due either to a streptococcus infection or to the influenza bacillus causing inflammation and suppuration of a retropharyngeal node. These nodes are most prominent in infancy, and diminish rapidly in size after the third year.

Retropharyngeal abscess is a disease of early life; more than 80 per cent. of the cases occurring before the second year. Lennox Brown says it is a rare affection. He noted but 6 cases in a service of over twenty years. This seems to have been the general experience of nose and throat specialists, whereas the pediatricians seem to have observed many more cases. Holt and Rotch say it is almost always seen in infancy, and that it is rare after the first year. Bokai reported 60 cases: 42 occurring during the first year, 11 during the second year, and only 7 at a later period.

Koplik says the disease is rare after the fifth year. Of his 70 cases, 4 occurred before the third month; 10 before the sixth month; 41 between the sixth and twelfth months; 19 between the first and fifth years; and only 3 after the fifth year.

The second case is a typical one, and is reported, as it affords a contrast to the first. It occurred in a seven-months-old breast-fed baby. The mother said it had always been a very healthy infant. It had a "cold" in the head, with some fever, for several days; and for three days had been very fretful and restless. The mother noticed that the child's breathing was somewhat labored during sleep, and that it did not nurse well. The difficulty in breathing and nursing was increasing, and when I saw the baby it had dyspnea, which seemed to be mostly inspiratory, and was worse in the recumbent position. It would nurse for only a few seconds at a time, and was growing weak evidently from lack of nourishment and from the labored breathing. The cry had a nasal twang. The head was thrown back and the mouth was open. The breathing was rattling and snoring, at times stertorous. Inspection of the throat, owing to the diminutive size, was difficult, and rendered more so by the accumulation of mucus. On introducing the finger a tense fluctuating swelling was detected in the posterior wall of the pharynx, nearly in the median line, reaching down to the larynx.

Using a finger as a guide, an opening in the abscess was made, and a large amount of creamy pus was evacuated. Pressure with the finger on the walls of the abscess was necessary to thoroughly empty it. The infant began to breathe easily at once, and made a perfect recovery in a few days. There has been no return of the disease.

The injection into a ganglion of the wrist of phenol-camphor, two to ten minims, according to the size, and repeated once or twice if necessary, will cause its complete disappearance in most cases. No attempt at preliminary aspiration need be made. —*American Journal of Surgery.*

Foreign Bodies in the Larynx and Trachea. M. McTyeire Cullom, A.B., M.D., Surgeon to St. Thomas's Hospital; President Nashville Academy of Medicine and Davidson County Medical Society, Nashville, Tenn., in the *International Journal of Surgery.*

When a foreign body becomes lodged in the air passages nature gives instant and unmistakable assurance that a grave accident has occurred. In his great article on "Foreign Bodies in the Larynx and Trachea," Roe quotes the immortal Gross as follows: "How many persons have perished, perhaps in an instant and in the midst of a hearty laugh, the recital of an amusing anecdote, or the utterance of a funny joke, from the interception at the glottis of a piece of meat, a crumb of bread, a morsel of cheese, or a bit of potato, without a suspicion of those around of the real nature of the case. Many a coroner's inquest has been held upon the bodies of the victims of such accidents and a verdict rendered that they died by the visitation of God, when the actual cause of death lay quietly and unobserved at the door of the windpipe of the deceased."

Foreign bodies in the larynx constitute one of the rare conditions which the physician is called upon to relieve. It is the testimony of many laryngologists that out of many thousands of patients applying for treatment, only a very few are so afflicted. The articles which most commonly find lodgment in the throat are, first, fish bones, chicken bones, and the bones of game birds. Pieces of toothpick, perhaps, come next; then pins, needles, tacks, toothbrush bristles, false teeth, thread, coins, grains of corn, wheat, or seeds of various kinds, as well as small objects that are liable to be put into the mouth by children or grown persons. When we realize how well guarded the larynx is, it is not surprising that so few objects find lodgment in it.

The symptoms of a foreign body in the larynx may be classified as immediate and remote. The immediate symptoms are apt to be all those of a most distressing spasm of the glottis. Respiration is interrupted, the patient giving a gasp or two, followed by prolonged stridulous inspiratory efforts, accompanied by a crowing noise, which is peculiar to spasm. The patient has an anxious expression, wide open eyes, livid lips, and if the paroxysm is prolonged, extreme cyanosis sets in and the patient may drop to the floor unconscious. In such cases death may occur almost at once from asphyxia. As a rule, however, the spasm ceases and respiration is resumed; it may be with difficulty. There is, however, a constant effort of nature to expel the intruder, and the spasm is apt to recur at intervals. There are always more or less pain and discomfort referred to the larynx.

The remote symptoms set up by foreign bodies in the larynx are inflammation, suppuration, or ulceration. If the foreign body becomes lodged in a bronchus a septic pneumonia is very apt to be set up, and a fatal result is almost sure to follow. There are instances, however, of very remarkable toleration shown by the larynx for foreign bodies. Coins have been carried in the larynx for a long time, and a case is reported of a toy locomotive being lodged in the larynx and remaining for some time without producing death.

The diagnosis is made with the laryngeal mirror, the x-ray, or from the history and symptoms. The diagnosis is a matter of the greatest importance, for it is in most cases an accident fraught with the gravest dangers to life. Many cases apply to us under the impression that they have a foreign body lodged in the throat when none can be found. The traumatism caused by its passage into the esophagus leaves an irritation which the patient mistakes for a foreign body. In Prof. Juaraz's clinic at Heidelberg, out of 4048 patients applying for throat treatment, 106 came under the impression that they had a foreign body in the throat, but in only four was one actually found. And, again, foreign bodies exist in children where none are suspected.

The lodgment of a foreign body in the air passages is always serious. Death may ensue immediately from suffocation, or inflammation and sepsis may occur as a result of retention, with death as a final result. Roe has collected 762 cases of foreign bodies in the larynx and trachea, of which 312 were in the larynx, and 450 in the trachea. In the 312 cases of foreign body in the larynx its removal by operation was undertaken in 124 cases with 17 deaths. Of the other 188 cases the foreign body was expelled spontaneously in 40 cases with 38 recoveries. In 101 cases it was removed by forceps through the mouth, all of which recovered. In 16 cases removal was accomplished by various means, such as inversion, the fingers, by emesis, etc., all of the patients recovering. In 31 cases no operation was attempted, and of these, 28 died. Of the 450 cases in which the foreign body was in the trachea it was removed by operation in 239 cases, with 201 recoveries. In 124 the foreign body was expelled spontaneously, with 112 recoveries; in 14 it was removed by forceps, in 9 by inversion, in 2 by emesis; all recoverd. In 58 cases no operation was undertaken, with 56 deaths. So that in 312 cases of foreign bodies in the larynx there were 265 recoveries, or 84.9 per cent.; of 450 cases of foreign bodies in the trachea, 343 recovered, or 77 per cent. Combining the statistics of a number of investigators, comprising about 2,650 cases, the recoveries are 78 per cent. The significant fact which these statistics bring out is the almost certain death of the patient when the foreign body is not removed spontaneously or otherwise.

The diagnosis of a foreign body having been made. the urgent indications are for its prompt removal. The only question is by what means is it to be accomplished The means of removal are by expulsion through the natural passages; removal through the natural passages with instruments; removal with instruments or by expulsion through an artificial opening. It is needless to say that removal by the natural channels is the most desirable, and every effort should be made to accomplish it in this manner before resorting to operation. unless the urgency of the symptoms demands surgical interference. Perhaps the earliest effort made to relieve a patient with a foreign body in the air passages was to tickle the throat so as to induce coughing and emesis. This has no doubt been tried successfully in thousands of cases that have not been reported. Thought some authorities condemn it. it is the first thing to be thought of in the urgency of laryngeal spasms. and should be resorted to at once. No doubt many a life has been saved by some one inserting a finger or a feather into the throat in such a way as to provoke emesis or coughing. Foreign bodies have also been expelled by bringing on a paroxysm of sneezing.

The method of inversion and succussion has been successfully practised in many cases. This is available in the case of objects which have weight enough to be acted on by the force of gravity, such as coins, bullets. metal objects, etc. The best way to accomplish this is to place the patient on a bench with his legs flexed over the end. and then elevate the bench at an angle of 45 degrees. Vigorously shaking the patient is supposed to aid the expulsion. The patient should avoid speaking, as this brings the vocal cords together and prevents the expulsion of the foreign body.

The ideal method for removing foreign bodies from the trachea is by means of bronchoscopy. which within a few years has been brought to a high state of perfection in technic. To Gustav Killian, of Freiburg. belongs the credit of placing this epoch-making method upon a practical basis. To those who have seen this modest. unassuming gentleman explore the deep recesses of the trachea and bronchi under direct inspection the method is a surprise and a revelation. The instruments consist of a tube-spatula. which is used in inspecting the larynx. and through which the bronchoscope may be used. The bronchoscope proper consists of a hollow tube carrying its own illumination in the shape of a small electric light within the lumen of the tube. The tube is passed directly into the trachea, whereby the trachea and bronchi may be directly inspected. and by means of suitable forceps foreign bodies may be removed without danger, without after-treatment, and without a scare, where available, and where indicated. It is the ideal method of extraction. In the comparatively small number of cases in which the method has been used the indicated mortality is 8 per cent., as against 22 per cent. for other methods. The instrument may also be inserted through the tracheotomy wound.

When attempts at removal of a foreign body through the natural channels have failed it is necessary to adopt surgical means, and the success of this treatment has been greatly facilitated by the use of the x-ray for diagnosing and locating the exact spot occupied by the foreign body. The character of the operation will be determined largely by the location and nature of the foreign body. When the trachea is opened, the foreign body is often expelled through the tracheal wound or through the larynx, or it may be thrown up into the trachea where it may be grasped with forceps. When it is not expelled at once, efforts should be made to extract it with forceps. Gross, Roe, and Cohen have devised flexible forceps, which can be bent at any angle for reaching into a bronchus.

I wish to report the following cases:

Case I. L. E., white, aged thirty-two, was brought to me by his physician June 19, 1904, with the following history: He was subject to a purulent discharge from the nose, which was characterized by an accumulation of crusts in the post-nasal space. These crusts were dislodged with great difficulty at times. Three days before, while hawking in an attempt to dislodge a crust, it was drawn into the larynx. He was seized with spasm, dyspnea, and all the symptoms of a foreign body in the larynx. His breathing had been very difficult ever since, with frequent attacks of urgent dyspnea. His distress was very apparent and his voice was practically gone. With the laryngeal mirror I discovered the crust in the treachea just below the vocal cords. I recognized the gravity of the condition, not only on account of the presence of the foreign body in the trachea, but also because being such a particularly foul one, I was unwilling to undertake its removal by endolaryngeal methods, for fear that I would dislodge it and cause it to drop into a bronchus with almost a certainty of septic pneumonia. I advised an immediate tracheotomy, which was agreed to. The patient was removed to St. Thomas's Hospital, and Dr. W. A. Bryan was called into the case. At four o'clock that afternoon Dr. Bryan did a high tracheotomy and removed the mass through the wound. The patient made an uneventful recovery.

Case II. I. M., female, white, aged eight. This patient was brought to me by her family physician with this history: On the day before, while her mother was dressing her for school, the patient took a pin out of her clothes and thrust it into her mouth. It slipped down her throat and she was immediately seized with a spasm of the glottis. The spasmodic coughing and difficult respiration lasted about a half hour. As soon as she was able to speak she said the pin was sticking in her throat. The mother sent at once for her physician, who examined her throat as carefully as possible without instruments and told the mother that the pin was nowhere in sight, that he thought it had passed on into the stomach, and that what she complained of was probably the irritation caused by the scratching of the pin. He directed the mother to let him know if anything further developed. The child continued in a highly nervous state and insisted that the pin was sticking in the throat. The next afternoon the mother again called the physician, and he found that the child had neither swallowed nor slept since the accident. He at once brought her to my office. It was then about thirty-three hours since she had swallowed the pin. She was in great distress and carried the head bent forward at an angle, as any attempt to straighten it caused intense pain. I examined her throat with the laryngeal mirror and discovered the pin sticking in the posterior opening of the larynx by the side of the right arytenoid cartilage.

I carefully cocainized the larynx, and after waiting ten minutes, proceeded to make the effort at extraction. I had just previously had made a modification of the Schroetter tube forceps, and this was my first opportunity to use the new instrument. Dr. Hale assisted me by holding the patient's tongue while I held the mirror with my left hand and managed the forceps with my right. After several attempt I succeeded in extracting the pin, which was buried to about half its length in the tissues. For a week the child had a temperature of between 100 and 101 degrees and was very nervous and restless. She was also quite hoarse and coughed considerably, but after ten days the symptoms cleared up and she has had no further trouble.

Potassium Cyanid Poisoning. J. W. Nolan, M.D., Chittabalbie, Korea, in *J.A.M.A.*

Cyanid of potassium poisoning is not infrequent among workmen who "clean up" in the cyaniding process of gold reduction, but is rare in private practice.

After the auriferous ore has been crushed to a fine sand through which an 0.5 per cent. solution of cyanid of potassium is allowed to filter, the solution passes into boxes filled with zinc shavings on which gold is precipitated from the auro-potassic cyanid in the solution. It requires some little force to dislodge these gold particles, and consequently scrubbing the zinc shavings with the hands is the method usually employed. It is in this scrubbing process, while the hands and arms are necessarily bathed in the solution that poisoning occurs with greatest frequency. Different individuals exhibit different degrees of susceptibility, some being apparently immune. The temperature of the solution greatly modifies the ease with which the effect is produced, the greatest number of cases occurring during the cold season when the solution is, of course, very cold.

Case 1.—A husky young man of 23 was having his first experience in scrubbing the zinc shavings. An itching sensation immediately followed the immersion of his hands in the solution. Scarlet specks soon appeared, irregularly distributed over the area with which the solution was in contact. These scarlet specks quickly enlarged until a well defined circumscribed area was produced, these finally coalescing and forming a large scarlet area, but the initial specks or papules maintained their identity, being slightly elevated and of a deeper color than the neighboring skin. The itching continued for about two hours and a burning, uneasy sensation developed which persisted until the redness began to disappear, twelve hours later. Slight giddiness and headache were the only constitutional symptoms.

A similar case occurred in a well-nourished metallurgist. I put the hands and arms of these patients into a very dilute solution of hot sulphuric acid for several minutes every hour. The redness soon began to fade and had disappeared altogether in twelve hours. The following formula shows the chemical reaction:

A Convenient Way of Keeping Tab When Counting in Opsonic Work. C. C. Bass, M.D.

One of the drawbacks to opsonic index work is the large amount of very trying microscopic work required. Anything that would tend to reduce this time or the strain on the eyes would seem of value. Simon has proposed a technic according to which the percentage of phagocyting leucocytes is ascertained, no account being taken of the number of bacteria per leucocyte.

The following suggestion will apply whether the original technic of Wright and Douglas is used or Simon's, with slight adjustment to the particular case. When counting in determining the Wright index, one observes the number of bacteria in each of several leucocytes, carrying the separate numbers "in his head" until he has as many as he can carry, say five to ten; then he jots them down, thus: 1, 2, 0, 5, 0, 0, 1, 0, 4, 2, etc., and after a sufficient number has been counted, the figures are added up and the calculations made. I take it that the most trying part on the eye is the frequent accommodation and reaccommodation of the eye to the microscopic field and tab figures, etc., as well as to the very different amounts and often qualities of light. I believe this is largely obviated by a method which has been used in my laboratory for several months.

A box containing 50 or 100 beans or beads (I use 50 beans) and a similar empty box (the boxes in which microscope slides come answer well) are placed on the table, at convenient places, on the right of the microscope. A handful of beans is taken up in the right hand, with which the mechanical stage is manipulated, and one bean is dropped into the empty box for each polymorphonuclear leucocyte observed, the left hand manipulating the fine adjustment, as usual. One counts the bacteria as observed; for example, with the above he would say: 1, 3, 8, 9, 13, 15, etc., until the box is empty. The number counted would be the number in 50 cells. There is no putting down and adding up of figures and the eye has not been removed from the field during the time. If more than 50 cells are to be counted, put down the number, or carry it on, as you preferred, exchange the position of the boxes and proceed as before.

When counting the phagocyting cells only for the Simon index, one may proceed as before, dropping a counter for each "poly" seen and counting as one goes, only those cells phagocyting, as 1, 2, 3, 4, 5, 6, etc. If 100 counters are used, the number counted phagocyting would be the percentage of phagocyting leucocytes.

If one does not use a mechanical stage he can modify the above to suit his convenience.

Crude as the method seems, only a trial is necessary to convince one of the advantages in time and eye saving.

Nurses should be instructed not to massage the limbs of patients who complain of pain after operation or confinement, without the order of the attending surgeon. If phlebitis and thrombosis are present, the manipulation may loosen a clot and cause instant death.—*American Journal of Surgery.*

A Displaced Sigmoid in a Case of Appendicitis. W. A. KICKLAND, M.D., Fort Collins, Colo., in *J.A.M.A.*

The following case is an interesting one because of the position of the sigmoid and the failure of the usual rule for finding the appendix, that of following the longitudinal muscular band of the presenting large intestine to its pelvic end:

Patient.—J. A., aged 35, a lather by trade, was referred to me by a physician in a neighboring town with a diagnosis of appendicitis. The history was the usual one of an acute attack in mild form lasting four days with no improvement. Examination showed tenderness over McBurney's point with muscular rigidity; temperature was normal and pulse 85.

Operation.—In operating, the gridiron incision was used and the large intestine immediately presented itself in the wound. It was drawn out from the pelvic end, following the longitudinal band of muscular fibers, and search was made for the appendix. The lower end of the intestine seemed so deep in the pelvis that suspicions were aroused and the introduction of a rectal tube showed this portion of the intestine to be the sigmoid instead of the cecum. Tracing it upward, it was found that instead of going up to the liver region, as might be expected in a case of inverted viscera, the colon went across to the splenic region. The sigmoid was dropped and the opening enlarged so that the abdominal cavity could be inspected more freely, and the cecum with the inflamed appendix was seen lying up under the liver. The appendix was removed and the recovery was uneventful.

Three or four drops of peroxid of hydrogen in the ear followed five minutes later by thorough syringing with boracic acid solution, will readily remove any impacted cerumen.

When there is a perforating wound of the cornea, necessitating enucleation of the eye, the wound should be closed so that the eyeball does not collapse during the operation.

Small stab wounds (one-half cm. long) in the course of a developing cellulitis of an arm or leg, followed by the application of a Martin bandage above for five to eight hours a day (Bier treatment), will relieve the patient more quickly than large incisions with drainage.—*American Journal of Surgery.*

Proceedings of Societies.

INTERNATIONAL CONGRESS ON TUBERCULOSIS.

The Central Committee of the International Congress on Tuberculosis has announced the offer of the following prizes:

1. A prize of $1,000 is offered for the best evidence of effective work in the prevention or relief of tuberculosis by any voluntary Association since the last International Congress in 1905. In addition to the prize of $1,000, two gold medals and three silver medals will be awarded. The prize and medals will be accompanied by diplomas or certificates of award.

Evidence is to include all forms of printed matter, educational leaflets, etc.; report showing increase of membership, organization, classes reached—such as labor unions, schools, churches, etc.; lectures given; influence in stimulating local Boards of Health, schools, dispensaries, hospitals for the care of tuberculosis; newspaper clippings of meetings held; methods of raising money; method of keeping accounts.

Each competitor must present a brief or report in printed form. No formal announcement of intention to compete is required.

2. A prize of $1,000 is offered for the best exhibit of an existing sanatorium for the treatment of curable cases of tuberculosis among the working classes. In addition to the prize of $1,000, two gold medals and three silver medals will be awarded. The prize and medals will be accompanied by diplomas or certificates of award.

The exhibit must show in detail construction, equipment, management, and results obtained. Each competitor must present a brief or report in printed form.

3. A prize of $1,000 is offered for the best exhibit of a furnished house, for a family or group of families of the working class, designed in the interest of the crusade against tuberculosis. In addition to the prize of $1,000, two gold medals and three silver medals will be awarded. The prize and medals will be accompanied by diplomas or certificates of award. This prize is designed to stimulate efforts towards securing a maximum of sunlight, ventilation, proper heating, and general sanitary arrangement for an inexpensive home. A model of house and furnishing

is required. Each competitor must present a brief with drawings, specifications, estimates, etc., with an explanation of points of special excellence. Entry may be made under competitor's own name.

4. A prize of $1,000 is offered for the best exhibit of a dispensary or kindred institution for the treatment of the tuberculous poor. In addition to the prize of $1,000, two gold medals and three silver medals will be awarded. The prize and medals will be accompanied by diplomas or certificates of award.

The exhibit must show in detail construction, equipment, management, and results obtained. Each competitor must present a brief or report in printed form.

5. A prize of $1,000 is offered for the best exhibit of a hospital for the treatment of advanced pulmonary tuberculosis. In addition to the prize of $1,000, two gold medals and three silver medals will be awarded. The prize and medals will be accompanied by diplomas or certificates of award.

The exhibit must show in detail construction, equipment, management and results obtained. Each competitor must present a brief or report in printed form.

6. The Hodgkins Fund Prize of $1,500 is offered by the Smithsonian Institution for the best treatise that may be submitted on "The Relation of Atmospheric Air to Tuberculosis."

The detailed definition of this prize may be obtained from the Secretary-General of the International Congress or Secretary of the Smithsonian Institution, Chas. D. Walcott.

7. Prizes for Educational Leaflets:

A prize of $100 is offerd for the best educational leaflet submitted in each of the seven classes defined below. In addition to the prize of $100, a gold medal and two silver medals will be awarded in each class. Each prize and medal will be accompanied by a diploma or certificate of award.

Competitors must be entered under assumed names.

(*a*) For adults generally (not to exceed 1,000 words).

(*b*) For teachers (not to exceed 2,000 words).

(*c*) For mothers (not to exceed 1,000 words).

(*d*) For indoor workers (not to exceed 1,000 words).

(*e*) For dairy farmers (not to exceed 1,000 words).

(*f*) For school children in grammar school grades (not to exceed 500 words).

In classes *a*, *b*, *c*, *d*, *e*, and *f*, brevity of statement without sacrifice of clearness will be of weight in awarding. All leaflets entered must be printed in the form they are designed to take.

(*g*) Pictorial booklet for school children in primary grades and for the nursery.

Class *g* is designed to produce an artistic picture-book for children, extolling the value of fresh air, sunlight, cleanliness, etc., and showing contrasting conditions. "Slovenly Peter" has been suggested as a possible type. Entry may be made in the form of original designs, without printing.

8. A gold medal and two silver medals are offered for the best exhibits sent in by any States of the United States, illustrating effective organization for the restriction of tuberculosis. Each medal will be accompanied by a diploma or certificate of award.

9. A gold medal and two silver medals are offered for the best exhibits sent in by any State or Country (the United States excluded), illustrating effective organization for the restriction of tuberculosis. Each medal will be accompanied by a diploma or certificate of award.

10. A gold medal and two silver medals are offered for each of the following exhibits; each medal will be accompanied by a diploma or certificate of award; wherever possible each competitor is required to file a brief or printed report:

(*a*) For the best contribution to the pathological exhibit.

(*b*) For the best exhibit of laws and ordinances in force June 1st, 1908, for the prevention of tuberculosis by any State of the United States. Brief required.

(*c*) For the best exhibit of laws and ordinances in force June 1st, 1908, for the prevention of tuberculosis by any State or Country (the United States excluded). Brief required.

(*d*) For the best exhibit of laws and ordinances in force June 1st, 1908, for the prevention of tuberculosis by any municipality in the world. Brief required.

(*e*) For the society engaged in the crusade against tuberculosis having the largest membership in relation to population. Brief required.

(*f*) For the plans which have been proven best for raising money for the crusade against tuberculosis. Brief required.

(*g*) For the best exhibit of a passenger railway car in the interest of the crusade against tuberculosis. Brief required.

(*h*) For the best plans for employment for arrested cases of tuberculosis. Brief required.

11. Prizes of two gold medals and three silver medals will be awarded for the best exhibit of a workshop or factory in the in-

terest of the crusade against tuberculosis. These medals will be accompanied by diplomas or certificates of award.

The exhibit must show in detail construction, equipment, management, and results obtained. Each competitor must present a brief or report in printed form.

The following constitute the Committee on Prizes: Dr. Charles J. Hatfield, Philadelphia, *Chairman*; Dr. Thomas G. Ashton, Philadelphia, *Secretary;* Dr. Edward R. Baldwin, Saranac Lake; Dr. Sherman G. Bonney, Denver; Dr. John L. Dawson, Charleston, S.C.; Dr. H. B. Favill, Chicago; Dr. John B. Hawes, 2nd, Boston; Dr. H. D. Holton, Brattleboro; Dr. E. E. C. Levy, Richmond, Virginia; Dr. Charles L. Minor, Ashville, N.C.; Dr. Estes Nichols, Augusta, Me.; Dr. M. J. Rosenau, Washington; Dr. J. Madison Taylor, Philadelphia; Dr. William S. Thayer, Baltimore; Dr. Louis M. Warfield, St. Louis.

CANADIAN MEDICAL ASSOCIATION.

At the Forty-first Annual Meeting of the Canadian Medical Association, to be held this year in Ottawa, on the 9th, 10th and 11th of June, it has been decided to have the following sections: General Medicine, General Surgery, and one session each, all going on at the same time, for these: Mental Diseases; Eye, Ear, Nose and Throat; Public Health; Obstetrics and Gynecology; Pathology; Military Surgery. Dr. J. T. Fotheringham, Toronto, and Dr. A. J. Mackenzie, Toronto, are respectively Chairman and Secretary of Medical section; in General Surgery, Dr. Geo. E. Armstrong and Dr. E. W. Archibald, Montreal; in Mental Diseases, Drs. W. H. Hattie, Halifax, and J. C. Mitchell, Brockville; in Public Health, Drs. Chas. A. Hodgetts, Toronto, and Law, Ottawa; Chairman of Obstetrics and Gynecology, Dr. F. A. Lockhart, Montreal; Eye, Ear, Nose and Throat, Drs. Birkett and McKee, Montreal; Pathology, Dr. W. T. Connell, Kingston; Military Surgery, Dr. G. Stirling Ryerson, Toronto, and Dr. Leggett, Ottawa. The address in Medicine will be delivered by Dr. Risien Russell, London, England.

The place of meeting will be in St. George's Church, Parish Hall, Metcalfe Street, and the Racquet Court just opposite for exhibits and registration; also the Carnegie Library, close by, for any sectional meetings necessary.

Railway arrangements are completed for all points east of Fort William in the territory of the Eastern Canadian Passenger Association, and the standard certificate plan will prevail. Those as to Manitoba and west thereof, including British Columbia, the General Secretary is in constant communication with the proper people on the subject and hopes to be able to give a definite announcement soon. As early as possible the official circular will be sent out, with full information and provisional programme.

ONTARIO MEDICAL ASSOCIATION.

Section of Preventive Medicine—10 A.M.

1. "Diphtheria Antitoxins as Prophylactic and Curative Agents"—W. Goldie, Toronto.

2. "Medical Inspection of Schools." — Helen MacMurchy, Toronto.

3. "Control of Minor Contagious Diseases." — M. Sinclair, Walkerton.

4. "Precautionary Measures Necessary to Prevent Infection in Typhoid Fever Patients."—J. A. Amyot, Toronto.

5. "Sewage System for Towns and Smaller Cities."—P. Aird Murray, C.E., late of Leeds, England.

6. "Anti-Variolous Vaccines"—Charles A. Hodgetts, Toronto.

Section for the Eye, Ear, Nose and Throat—9.30 A.M.

1. "Lateral Sinus Suppuration and Cerebellar Abscess."—J. P. Morton, Hamilton.

2. "Tubercular Uveitis."—J. W. Stirling, Montreal.

3. "Glaucoma."—R. A. Reeve, Toronto.

4. "Clinical Measurement of Relative Accommodation."—Lucien Howe, Buffalo.

5. "Accessory Sinus Disease."—Perry Goldsmith, Toronto.

Section of Obstetrics and Diseases of Children—9.30 A.M.

1. "A Fatal Form of Eclampsia."—K. C. McIlwraith, Toronto. Discussion to be led by J. D. Balfour, London.

2. "Obstetrical Technique."—Frederick Fenton, Toronto.
3. "Some Complications of the Puerperium, Report of a Case."—J. R. Stanley, St. Mary's.
4. "Missed Abortion."—H. Ferguson, London.
5. "Mole Pregnancy with Specimen."—C. R. Charteris, Chatham.
6. "A Case of Spadmodic Stenosis of the Pylorus in an Infant, with Recovery."—H. T. Machell, Toronto.
7. "Pyo-pneumo-thorax Due to a Fusiform Bacillus."—Allen Baines, Toronto.

MEETING OF THE ASSOCIATION OF AMERICAN TEACHERS' OF THE DISEASES OF CHILDREN.

The Association of American Teachers of the Diseases of Children will hold its annual meeting in Chicago, at the Great Northern Hotel, corner of Jackson Boulevard and Dearborn, on June 1st.

Requirements for membership in this Association are somewhat unique. To be eligible one must be a regular physician resident in the United States, Canada or Mexico, who is in good professional standing and membership in his county or local medical society and actively engaged as Professor or Associate Professor or Clinical Professor of Pediatrics, or as adjunct to such a chair, or who holds the position of Lecturer on this branch or an equivalent position in a recognized medical college, or who is a member of a properly organized hospital or dispensary staff actively engaged in the treatment of children. All such are invited to join the Association; and all physicians and surgeons interested in children are invited to attend the meeting. Its objects are the study, the teaching and the practice of pediatrics.

The officers of the Association are as follows:

President—Samuel W. Kelley, M.D., Professor of Diseases of Children in Cleveland College of Physicians and Surgeons, Medical Department of Ohio Wesleyan University.

Vice-President—Chas. Douglas, M.D., Professor of Diseases of Children in Detroit College of Medicine.

Secretary—John C. Cook, M.D., Professor of Diseases of Children in Post-Graduate Medical School and Hospital of Chicago (deceased).

Secretary Pro Tem.—Robert A. Black, M.D., Chicago.

Treasurer—George G. Cattermole, M.D., Professor of Diseases of Children in Colorado School of Medicine.

Senators—W. C. Hollopeter, M.D., Professor of Diseases of Children in Medico-Chirurgical College of Philadelphia; H. M. McClanahan, M.D., Professor of Diseases of Children Medical Department of the University of Nebraska, Omaha; F. R. Gilbert, M.D., Professor of Diseases of Children Kentucky Medical College, Louisville, Ky.

The programme for the Chicago meeting is not completed, but in part it is here presented:

Address of Welcome—Arthur D. Bevan, M.D., Professor of Surgery, Medical Department University of Chicago, Chairman Council on Education A. M. A.

Address of the President, Samuel W. Kelley, M.D., Professor Diseases of Children, Cleveland College of Physicians and Surgeons Medical Department Ohio Wesleyan University, Cleveland, Ohio.

"The Teaching of Pediatrics as Seen by an Inspector of Medical Colleges." Frederick C. Zapffe, M.D., Secretary American Medical College Association, Chicago, Ill.

"The Fallacy of Attempting to Teach Pediatrics in the Chair of Practice." John A. Witherspoon, M.D., Professor Practice of Medicine, Vanderbilt University, Nashville, Tenn.

"The Teaching of Pediatrics in the European Schools." H. E. McClanahan, M.D., Professor of Pediatrics, University of Medicine, Omaha, Neb.

"The Teaching of Pediatrics in The Medico-Chirurgical College of Philadelphia." W. C. Hollopeter, M.D., Professor Pediatrics, Medico-Chirurgical College, Philadelphia, Pa.

"The Doctrine of Difficult Dentition." Theodore J. Elterich, M.D., Diseases of Children, Western University of Penna., Medical Department, Pittsburg, Pa.

"Anatomical Peculiarities of Infants and Children." Richard B. Gilbert, M.D., Professor Diseases of Children, Louisville University, Louisville, Ky.

"Unciniariasis in the Southern States." J. Ross Snyder, M.D., Birmingham, Ala.

Paper, Wm. W. Butterworth, M.D., Associate Professor Diseases of Children, Tulane University, New Orleans.

"Some Points on Infants' Clothing." Alfred C. Cotton, M.D., Professor Diseases of Children, Rush Medical College, Chicago.

Paper, Robert A. Black, M.D., Chicago, Ill.

Paper, Wm. J. Butler, M.D., Chicago, Ill.

Paper, J. W. Van Derslice, M.D., Chicago, Ill.

PRESENTATION—DR. GEIKIE'S PORTRAIT.

To the President and Fellows of The Academy of Medicine, Toronto:

Gentlemen,—I accept with much pleasure the portrait just presented to me by Dr. Bingham on behalf of the Graduates of Trinity Medical College in such kind and pleasing terms, representing the more than warm feelings entertained towards me personally, by the Graduates of my old College. Fifty-one of the best years of my life were spent as an earnest Medical educationist. Thirty-two of these, from April, 1871, till June, 1903, were specially devoted to the founding—establishing on as firm a foundation as possible—and building up, of Trinity Medical College, with all the energy I possessed, ever keeping in view, and promoting, as far as was in my power, the best interests of every student, who entered the College during that long period.

I therefore appreciate this presentation coming from her graduates very highly. It vividly recalls many past and most pleasing years—years to me of continuous delight in daily meeting my classes. With all my heart I thank every graduate, who has had a share in this presentation, who was as loyal to his College as I was, and who now cherishes as sincerely as I do her glorious memory.

I regard this presentation as a fresh and marked evidence that the hearts of our graduates continue to beat, as my own does, with mingled pleasure and pride, as we think of the magnificent work Trinity Medical College did for Practical Medical Education during the long and useful years of her existence. No wonder that my whole heart was given to promoting and stimulating so great and so grand a work. It is, however, and I think our graudates will all agree with me, very largely, perhaps chiefly, to commemorate the glorious and long continued usefulness of our College, that this presentation is now made. The numerous high positions our graduates occupy where they are practising their profession, and the eminence attained by so many of them, in Canada and elsewhere, bear testimony stronger than any words of mine can do, to the excellence of the professional training they received within her walls.

I may here mention as illustrative of the fact just stated, the well-known names of Professors Alex. H. Ferguson, of Chicago, Teskey and G. A. Bingham, of Toronto, who with many others are eminent surgeons, and did time permit, the names of many others might be given who are distinguishing themselves in all the various branches of the medical profession in Canada and in other Countries.

It is not surprising, therefore, that with hardly an exception the graduates are as loyal to the memory of their College, and that her name is, and always will be, as dear to them as it is to me. Great and long continued as my work in connection with the College was, the general success of her graduates has always been to me an inspiration and a joy.

In this connection I have only one regret and one wish—the regret is, at my not having done more than I did for my College and for her students. The wish is, that, what I did do, had been done very much better.

A College like ours was worth the labor of many a life, as her teaching was a blessing to the men she taught—a credit to our City and Country and a boon to the public who require and deserve to have the very best and most practically taught medical men we can produce sent out to practise their profession—men who are capable of successfully coping with the frequent and great responsibilities so often met with at the bed side.

While to-night my remarks have necessarily referred to my own College and her graduates only, it goes without saying, that I entertain no feelings other than those of kindness and sympathy, towards all well conducted medical Colleges which now exist, or which may hereafter be established amongst us, and nothing pleases me better than to hear of their full success.

Gentleman, I again thank you for the Portrait and have pleasure in presenting it to the Toronto Academy of Medicine.

Walter B. Geikie.

Toronto, April 7th, 1908.

ANNUAL CONVENTION OF CANADIAN HOSPITAL ASSOCIATION.

The value of fumigation as a means of preventing the spread of disease was somewhat discredited by a paper read by Dr. A. D. MacIntyre, Superintendent of the Kingston General Hospital, at the annual convention of the Canadian Hospital Association, which was held at the Parliament buildings April 20 and 21st. Dr. MacIntyre quoted a number of experiments which had been made at the Kingston Hospital, and, in conclusion, said that he believed more in God's sun and fresh air than anything else. In this remark he was supported by Miss L. C. Brent, Superintendent of the Toronto Hospital for Sick Children, and President of the Association, who, however, coupled soap and water with sun and fresh air.

Miss L. C. Brent in her Presidential address advocated that the membership of the Association should be extended so as to include trustees of hospitals and other laymen interested in hospital work.

Among those present were:—Dr. W. B. Kendall, Gravenhurst; M. A. Jackson, Chatham; Miss Jessie Duncan, Owen Sound; J. K. M. Gordon, Gravenhurst; Dr. W. J. Dobbie, Weston; Miss E. MacPherson Dickson, Weston; Miss M. G. V. McKnight, Walkerton; Miss N. McLene, Barrie; Miss A. J. Robinson, Galt; M. J. E. Morton, Collingwood; Catherine Lawrence, Sarnia; W. F. Backach, Detroit; Dr. T. Sutton, Detroit; Lila J. MacAdam, Renfrew; Hannah Collingsworth, St. Catharines; H. M. Hurd, Superintendent Johns Hopkins Hospital, Baltimore; H. D. McIntyre, Kingston; Francis Sharpe, Woodstock; Dr. Brown, Superintendent Toronto General Hospital; Dr. Bruce.

Dr. W. J. Dobbie, Superintendent of Toronto Free Hospital and King Edward Sanitarium, Weston, read an interesting paper on tuberculosis as a social problem. As have many other medical men who have dealt with this subject, he pointed out that from 1896 consumption was accountable for 11 per cent. of the deaths in Ontario. The cash loss to the Dominion by the cutting short of the wage-earning ability of victims of the disease, coupled with the cost of treatment, he estimated at $24,000,000 annually. He urged the importance of the adoption of educational methods to stir up public opinion and suggested that centres of activity should be established in every town and county, and committees appointed to inquire into every branch of the work of establishing and maintaining hospitals. Compulsory notification of cases was also advocated by Dr. Dobbie, and registration after notification.

Dr. Gordon urged also the importance of educating the public in this matter, commencing with the children in the public schools. At present in many gymnasiums, he said, they found overtrained consumptives. Similar views were also expressed by Dr. Kendall. "Unfortunately," he said, "we do not know much about the really poor classes, but we should be careful to prevent the arrival of tubercular immigrants."

Dr. Bruce Smith did not consider that general hospitals were doing all they could in this matter, and he suggested that in connection with them, especially in rural districts, a separate building should be erected for the treatment of tubercular cases. He mentioned also that in future any immigrant showing signs of tuberculosis would not be allowed to land. He believed that the Provincial Government would be willing to aid in the carrying out of the suggestion he had made.

Mr. J. Ross Robertson pointed out that the financial position of general hospitals prevented them doing more in the direction indicated by Dr. Bruce Smith. Personally he had to work overtime to get funds for the Hospital for Sick Children. Still if the Government would provide the funds he had no doubt the hospital authorities would be willing to undertake the work. "At present," he said, "sanitariums have empty beds. but no money for maintenance." Too much was being left to private philanthropy, and he thought the Government should grant at least $100.000 more annually in aid of hospitals.

Dr. Helen MacMurchy read a very practical paper on "The Milk Supply." At the outset she pointed out that Toronto's milk supply was now drawn from many farms far distant from the city. Still the people stuck to the old idea that milk should be delivered early in the morning, acting under the impression that they were getting it thereby direct from the cow with the smallest possible delay. It was impossible to milk cows at 4 o'clock in the morning on farms fifty or a hundred miles away and have it delivered in Toronto in time for an 8 o'clock breakfast. Consequently the milk brought by the early delivery was more or less old, and had been exposed to infection and contamination. Three samples of milk taken at Toronto hospitals at 7 o'clock in the morning showed respectively five million bacteria to the cubic centimetre, eight million and three hundred and eighty-four thousand. Other samples taken at noon showed 14,000 bacteria to the cubic centimetre, six millions, 1,250,000, and three millions. Uncleanliness was, said Dr. MacMurchy, the greatest evil which had to be contended with. In the course of her address, Dr. MacMurchy said that she had no doubt Toronto's milk was adulterated. She herself had seen on the platform of a railway station not a hundred miles away a pile of cases bearing the inscription "coloring matter for dairy purposes."

In the evening the delegates attended a reception held by the President at the Sick Children's Hospital. The Association will meet again, when papers will be read on "Contagious diseases in relation to hospital management," by Dr. Sheard; "Some observations in European psychiatric hospitals," by Dr. C. K. Clarke; "The hospital and the public," by Mr. D. T. Sutton; "A new typhoid hopper," by Dr. H. E. Webster; "The nursing of incurable patients," by Miss M. M. Grey, Superintendent of the Hospital for

Incurables,'' and ''The proper length of study for nurses,'' by Dr. H. M. Hurd, Superintendent of Johns Hopkins Hospital, Baltimore.

''It is absolutely unavoidable that patients in hospitals should at times contract contagious diseases when in hospitals,'' said Dr. Charles Sheard, addressing the Canadian Hospital Association at the Parliament buildings yesterday morning. Sometimes by mistaken diagnosis contagious cases were sent to the ordinary wards when they should have been isolated, and vice versa, and frequently patients suffering from a non-contagious disease were hurried to an hospital by a doctor who forgot that they came from an infected house, and were mediums for carrying the disease.

''No Visitors Allowed,'' was another text taken up by Dr. Sheard. They were, he said, a nuisance, bringing infection into the hospital. A mother might have one child in the hospital and another sick with measles at home. When that mother visited the hospital she was taking tremendous chances of spreading infection.

Miss L. C. Brent, Superintendent of the Children's Hospital, echoed the remarks of Dr. Sheard with regard to visitors, and Mr. J. Ross Robertson said that it had cost the Hospital for Sick Children $15,000 to deal with infection brought in by visitors.

''The nursing methods of America, and I use the term in its broad sense, are in advance of those of Germany,'' said Dr. C. R. Clarke, Superintendent of the Toronto Hospital for Insane, in the course of his paper on ''European Psychiatric Hospitals.'' He urged that there should be a closer relation between psychiatric and general hospitals. The training to be gained in a psychiatric clinic would be of great value to the general nurse, while at the same time the psychiatric nurse could not rise to the highest point of her profession without training in medical and surgical nursing. Therefore, when the new Provincial psychiatric clinic was established he urged that there should be the greatest reciprocity between that institution and the general hospitals in regard to affording opportunities to nurses to obtain training.

Dr. H. M. Hurd, Superintendent of the Johns Hopkins Hospital, Baltimore, regretted that general practitioners did not take a greater interest in mental diseases. He congratulated Ontario upon the proposal to establish the new clinic, which would awaken a new interest in this important subject among both nurses and medical men.

Dr. D. C. Meyers thought that few yet realized what a boon to society the establishment of the new clinic would be. He thought, however, that it would be a mistake to send to that institution all acute nervous cases. He thought that in many cases it would be absolutely wrong to send nervous cases of a certain kind to a hospital for the insane.

Closer relation between the institutions for the insane and the general hospitals was also urged by Dr. Bruce Smith, Provincial Inspector of Prisons. The abandonment of the practice of sending insane persons to prison pending their transfer to hospitals for the insane was, he considered, a distinct advance.

Dr. W. C. Herriman, Mimico, thought it was impossible to draw a hard and fast line. In every nervous clinic cases of insanity would be found.

At the afternoon session exceedingly practical papers were read by Miss M. M. Gray, Superintendent of the Hospital for Incurables, on the nursing of incurables, and Dr. H. M. Hurd, Superintendent of the Johns Hopkins Hospital, Baltimore, on the proper length of the period of study for nurses.

The followinig officers were elected:—President, Dr. W. J. Dobbie, Weston; First Vice-President, Dr. A. D. MacIntyre, Kingston; Second Vice-President, H. E. Webster, Montreal; Third Vice-President, Miss I. C. Brent, Toronto; Fourth Vice-President, W. W. Kenny, Halifax; Fifth Vice-President, L. L. Cosgrove, Winnipeg; Secretary, Dr. J. N. E. Brown, Toronto; Treasurer, Miss Patton, Toronto.

EX-HOUSE SURGEONS GENERAL HOSPITAL FOREGATHER.

The third annual dinner of the ex-House Surgeons' Association of the Toronto General Hospital was held at the King Edward Hotel, Toronto, recently. Dr. Alexander Taylor, Vice-President, occupied the chair in the absence of Dr. W. P. Caven, who was unable to be present. Forty guests from the city and province were in attendance. One of the prominent speakers was Dr. T. B. Futcher, Associate Professor of Medicine in Johns Hopkins University, Baltimore, who is a member of the organization, and was a house surgeon at the "General" in 1893.

In his address Dr. Futcher referred to the "gold-headed cane" carried by eminent doctors of the 17th and 18th centuries as a mark of distinction, and he reviewed the lives of notable members of the medical profession from that day to this, tracing thereby the progress of medical science. Dr. O'Reilly, former Superintendent at the General Hospital, and Mr. P. C. Larkin, Vice-Chairman of the Board of Trustees, responded to the toast of "Our Guests." Mr. Larkin announced that he would give a prize to the ex-house officer who made the best contribution to medical literature between now and the time of the next meeting.

Among those present were: Dr. J. F. W. Ross, Dr. J. N E. Brown, Superintendent of the General Hospital; Dr. H. A. Bruce, Dr. C. Trow, Dr. H. Parsons, Dr. Hillary, Aurora; Dr. Chas. Temple, Dr. Edw. Gallie, Dr. T. D. Meikle, Mount Forest; Dr. C. Campbell, Dr. H. Hutchinson, Dr. G. Boyd, Dr. W. B. Hendry, Dr. Taylor, Goderich; Dr. Winnett, Dr. Burrows, Seaforth; Dr. Donald McGillivray, Dr. Fred Rolph, Dr. A. Caulfield, Dr. W. Charlton, Weston; Dr. W. Carswell, Dr. Harris, Dr. Canfield, Dr. J. A. Kinnear, Dr. John Malloch, Dr. A. Davies.

The annual election of officers resulted as follows: President, Dr. A. Taylor, Goderich; Vice-President, Dr. Fred Fenton; Secretary, Dr. J. N. E. Brown; Treasurer, Dr. W. B. Hendry; General Council, Dr. W. J. Charlton, Dr. H. A. Bruce, and Dr. Stanley Ryerson.

Dr. Futcher conducted a clinic open to the medical profession at the General Hospital.

Dr. J. F. W. Ross presented to the Association a framed picture, showing the Toronto General Hospital as it was 50 years ago and as it is at present.

AMERICAN MEDICAL EDITORS' ASSOCIATION.

The annual meeting of this Society will be held at the Auditorium Hotel, Chicago, on May 30th and June 1st. An extensive and interesting programme has been prepared and every member of the Association is urged to be present, and editors of medical magazines, not now affiliated with this Society, are also invited to meet with them.

Do not forget the date, Saturday, May 30th and Monday, June 1st.

BRITISH COLUMBIA MEDICAL ASSOCIATION.

The Ninth Annual Meeting of the British Columbia Medical Association will be held in Vancouver on the 20th and 21st of August next, and we should be very pleased to have any members of the profession present from the Eastern Provinces.

A number of papers have been promised, and some interesting discussions are expected, especially on the question of School Hygiene.

The officers of the Association are:— President, Dr. J. M. Pearson, Vancouver, B.C.; Vice-President, Dr. D. Corsan, Fernie; Treasurer, Dr. J. D. Helmcken, Victoria; Secretary, Dr. R. Eden Walker, New Westminster, B. C.

Hot bricks or stones retain their heat much longer than hot water bags.

Persistent suppuration in a mastoid wound in most cases, means dead bone at the bottom of the cavity.

An opaque growth on the eyeball in a child is likely to be a dermoid growth—that is a growth of skin epithelium on the conjunctiva.

A stye is often most easily treated by the removal of the hair in the infected follicle and the subsequent application of iced boracic acid compresses.

Syphilitic interstitial orchitis resembles closely in appearance new growth of the testicle. Unless the diagnosis of neoplasm is beyond all doubt, an active course of specific treatment should be tried before removing the organ.

An abscess of the right ovary may give the same signs and symptoms as acute fulminating appendicitis. If an incision for appendicetomy is made, it should be of sufficient length and low enough down to allow of careful examination of the right adnexa.—*American Journal of Surgery.*

Physician's Library.

Cosmetic Surgery: The Correction of Featural Imperfections. By Charles C. Miller, M.D. Second Edition Enlarged. Including the description of numerous operations for improving the appearance of the face. 160 pages. 96 illustrations. Prepaid $1.50. Published by the author, 70 State St., Chicago.

That a second edition of this little book has been called for in so short a space of time, shows that it has been received with encouragement. The little book is profusely illustrated for an effort of its size and scope. No doubt it fills a niche of its own in the minor realms of surgery, which has to do with the corrections of featural defects.

International Clinics. Volume I, Eighteenth Series, 1908.

This admirable and well-received quarterly by the profession, starts 1908 exceedingly well. There is a splendid article on the Sanatorium, by Dr. L. Brown, of Saranac Lake, quite appropriate at this time when the sanatorial treatment of tuberculosis is so much to the fore; another of equally good production on the opsonic test for diagnosis and of the employment of vaccines in certain infective conditions in children. Two in the department of medicine, the para-typhoid fevers and mucous colitis, are educating, and one by Dr. Rudolf, of Toronto, decidedly interesting—the normal temperature of the body. Several articles on surgery, gynecology, neurology and pathology, with a concise, up-to-date review of medicine in 1907, completes a good volume.

Diseases of the Nose and Throat. By Herbert Tilley, B.S. (Lond.), F.R.C.S. (Eng.), surgeon to the Ear and Throat Department, University College Hospital; teacher of Laryngology and Otology, University of London; formerly surgeon to the Golden Square Throat Hospital, London. Third Edition; with one hundred and twenty-six illustrations. Price, 14 shillings. London: H. K. Lewis, 136 Gower St., W.C., 1908.

This third edition of what was formerly known as Hall and Tilley's Diseases of Nose and Throat, has been prepared by Mr.

Tilley alone, along the lines of the two former editions. The author has, we think, wisely refrained from entering upon a lengthy description of the anatomy of the parts under discussion, contenting himself with a very brief and very-much-to-the-point resume of these details. For the rest we can only say the work is thoroughly complete and up-to-date as far as it goes, but we are inclined to think that the time honored rule of associating only disease of nose and throat together, should give way to the association of diseases of nose, throat and ear, since in every day practice they are so often associated. The text and illustrations are very clear and probably above the average of those met with in similar works.

Wellcome's Photographic Exposure Record and Diary, 1908.

Wellcome's Photographic Exposure Record and Diary banishes the greatest obstacle to success in photography—that of correctly estimating exposure. The actual determination of correct exposure is made by means of an ingenious little mechanical calculator attached to the cover of the book. A single turn of a single scale is all that is necessary. This little instrument with its accompanying tables giving the value of the light at all times of the day and year, and its list of the relative speeds of more than 180 plates and films, is alone worth more than the cost of the whole book. It certainly saves dozens of plates which would otherwise be wasted owing to errors in exposure.

This calculator is, however, but part of the book, which contains a full article explaining all the conditions governing exposure, with special illustrations and tables for interior work, for telephotography, for copying, enlarging and reducing, for moving objects, for night photography, and for printing by artificial light. In addition, there are tables of weights and measures—imperial and metric—notes on focussing by scale, customs regulations, a temperature chart, a full article on development, and directions for toning, intensification, reduction and similar photographic operations, by the simplest and most satisfactory methods available.

Bound up with these printed pages of condensed photographic information is a complete diary for 1908, together with ruled pages for systematically recording the details of over 300 exposures; also pages for memoranda, and for recording the exposures when printing on bromide, platinotype, carbon and other printing papers.

The book is enclosed in a neat wallet cover, lettered in gold, and fitted with a pencil and a pocket for storing proofs, etc. A new and important feature of the 1908 edition is, that it entitles purchasers to a hanging card for the dark room, giving the relative exposures required when using any one of 84 varieties of bromide paper or lantern slides.

The addition of a handy table for calculating exposures in photography at night is another new and useful feature. Price in Montreal, 30 cents.

Bier's Hyperemic Treatment in Surgery, Medicine, and all the Specialties: A Manual of Its Practical Application. By WILLY MEYER, M.D., Professor of Surgery at the New York Post-Graduate Medical School and Hospital; and Professor Dr. VICTOR SCHMIEDEN, Assistant to Professor Bier at Berlin University, Germany. Octavo of 209 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1908. Cloth, $3.00 net. Canadian Agents: J. A. Carveth & Co., Ltd., Toronto.

The medical profession will be glad to hear this book has been issued, as they are daily more and more interesting themselves in the Bier treatment, in medicine, surgery, and specialties. As the American author, one of the country's well-known surgeons, has been interested in, and has employed, this treatment ever since its introduction into America, fifteen years ago, his practical results will carry with them a good measure of weight. It apparently seems there is a wide field for the employment of the treatment; so the book, as a pioneer, will be heartily received. From the standpoint of the bookmaker's art, it is a high-class production.

The Canadian Medical Protective Association

ORGANIZED AT WINNIPEG, 1901

Under the Auspices of the Canadian Medical Association

THE objects of this Association are to unite the profession of the Dominion for mutual help and protection against unjust, improper or harassing cases of malpractice brought against a member who is not guilty of wrong-doing, and who frequently suffers owing to want of assistance at the right time; and rather than submit to exposure in the courts, and thus gain unenviable notoriety, he is forced to endure black mailing.

The Association affords a ready channel where even those who feel that they are perfectly safe (which no one is) can for a small fee enroll themselves and so assist a professional brother in distress.

Experience has abundantly shown how useful the Association has been since its organization.

The Association has not lost a single case that it has agreed to defend.

The annual fee is only $3.00 at present, payable in January of each year.

The Association expects and hopes for the united support of the profession.

We have a bright and useful future if the profession will unite and join our ranks.

EXECUTIVE.

President—R. W. POWELL, M.D., Ottawa.
Vice-President—J. O. CAMARIND, M.D., Sherbrooke.
Secretary-Treasurer—J. F. ARGUE, M.D., Ottawa.

SOLICITOR,

F. H. CHRYSLER, K.C., Ottawa.

Send fees to the Secretary-Treasurer by Express Order, Money Order, Postal Note or Registered letter. If cheques are sent please add commission.

PROVINCIAL EXECUTIVES.

ONTARIO—E. E. King, Toronto; I. Olmsted, Hamilton; D. H. Arnott, London; J. C. Connell, Kingston; J. D. Courtenay, Ottawa.

QUEBEC—H. S. Birkett, Montreal; E. P. Lachapelle, Montreal; J. E. Dube, Montreal; H. R. Ross, Quebec; Russell Thomas, Lennoxville.

NEW BRUNSWICK—T. D. Walker, St. John; A. B. Atherton, Fredericton; Murray MacLaren, St. John.

NOVA SCOTIA—John Stewart, Halifax; J. W. T. Patton, Truro; H. Kendall, Sydney.

PRINCE EDWARD ISLAND—S. R. Jenkins, Charlottetown.

MANITOBA—Harvey Smith, Winnipeg; J. A. MacArthur, Winnipeg; J. Hardy, Morden.

NORTH-WEST TERRITORIES—J. D. Lafferty, Calgary; M. Seymour, Regina.

BRITISH COLUMBIA—S. J. Tunstall, Vancouver; O. M. Jones, Victoria; Dr. King, Cranbrooke.

Dominion Medical Monthly

And Ontario Medical Journal

EDITORS:

GRAHAM CHAMBERS, B.A., M.B.   WALTER McKEOWN, B.A., M.D.

ASSOCIATE EDITOR:

T. B. RICHARDSON, M.D.

MANAGING EDITOR:

GEORGE ELLIOTT, M.D.

Published on the 15th of each month. Address all Communications and make all Cheques, Post Office Orders and Postal Notes payable to the Publisher, GEORGE ELLIOTT, 203 Beverley St., Toronto, Canada

VOL. XXX.   TORONTO, MAY, 1908.   NO. 5.

COMMENT FROM MONTH TO MONTH.

William S. England, M.D.C.M., McGill University, died suddenly at his home in Winnipeg, Manitoba, on the morning of the 24th of April, the cause of death being cerebral haemorrhage. He was forty years of age. Dr. England matriculated at McGill in 1885 and received his degree with high honors in 1889. After a year, as house-surgeon in the Montreal General Hospital, he located in Winnipeg, where he soon advanced to the front ranks and became one of the leading surgeons of the West. At the time of his death he was Professor of Anatomy in Manitoba Medical College, Chief Surgeon to the Winnipeg General Hospital, as well as being Consulting Surgeon to St. Boniface Hospital of the same city. The late Dr. England was a man of first-class attainment, thorough in his work, and of a quiet, unassuming demeanour. He was a member of the Canadian Medical Association and took a deep and genuine interest in its welfare. We deeply deplore his untimely demise and desire to express our sincere sympathy to his widow, his brother, Dr. Frank R. England, Montreal, as well as to the institutions he was connected with.

The Opportunity of Fraternal Societies to Co-operate in the Campaign Against Tuberculosis is not being neglected. The Canadian Fraternal Congress recently met in Toronto, and it was brought out that something has already been done in this direction. Strong resolutions were passed, calling upon governmental authorities to be up and doing, and it was particularly emphasized that the importance of a leader should not be overlooked nor any longer delayed. That is to say, the campaign against disease in all its various forms, which could be prevented, demanded recognition from Governments in the way of Departments of Public Health, for without a head no material or direct progress could be secured.

Newspaper Propaganda in the Local Press was suggested by one member of the medical section of the recent meeting of the Fraternal Congress, under the supervision of the Provincial Government, which should set aside funds for the purpose: That practitioners should report cases to local medical health officers, not necessarily for the purpose of placarding houses or for the means of directing people to give tuberculosis cases a wide berth, but for the purpose of educating the immediate family as to what they should do and when they should do it.

The suggestion appears to us a good one and would be a strong factor in any plan of campaign. In most homes is to be found the weekly country newspaper, and if a part of the front page of this were bought by the Government, the constancy and regularity of authorized essays or instructions would soon appeal to the readers thereof.

The Appointment of a Travelling Medical Secretary on the Part of the National Association for the Prevention of Tuberculosis is a wise move. In many places where branch associations of the parent organization were instituted they have been allowed to die of dry rot. Already all over the country there are live, active organizations, and a great many physicians are interested in them. These fraternal societies have many lodges in the cities, towns and villages of Canada. All of them have doctors connected with them who would no doubt interest himself sufficiently to create a wholesome, intelligent and enthusiastic interest in the campaign to be waged. Without enthusiasm in any work not much will be accomplished. The army of tubercular germs to be fought is a stupendous one, and it will take the entire forces of human kind to compass its defeat. All that a portion of human kind will accomplish will simply stay its ravages.

To Educate School Children from the beginning of their school lives seems to be proper and right, in matters of sanitary science. Indeed, we have long ago pointed out that physiology should be abolished in connection where it is taught in ordinary school curricula, and sanitary science substituted. Good results will only accrue in years to come when the children are brought up to the right principles of hygiene. All this emphasizes the importance of leadership. Leadership means governmental departments of health.

Were Confederation again to be inaugurated a Minister of Health would be, as he should be, one of the very first of the Ministers to be chosen. A Minister of Health should walk hand in hand with a Minister of Finance. He is of far more importance than a Minister of Justice or any subordinate Minister. If, in a given household, a member is to die, say of tuberculosis, the head of that household would willingly give up all his financial increment for the health of the individual threatened with destruction. If health in a household is of more importance than finances, in the unit of society, the home, is it not of just as much value in the congregation of households, the state? Given good health and finances to all, the importance of a Department of Justice is greatly diminished. Give the people good health and finances, and crime will diminish.

Anything New in Appendicitis is Always Interesting.—Now it is discovered that our method of defaecation is the cause. A short time ago the introduction of steel rollers for the milling of flour, and the small particles of steel which got into the flour, and in process of time got into the appendix, with resultant irritation and inflammation, was cited as the cause. This is scouted, however, by the new aspirant to appendicitis fame. We are taken to India and are told how they do it in India—and the new suggestion as to cause may have a measure of truth in it, as it seems to be well-established that in India there is very little appendicitis. There are said to be two factors at work in India, namely, the free purgation for everyone with anything and the posture assumed in defaecation. To appreciate the latter, the method of defaecating by the native needs to be described. Here is the description in the words of *The Lancet*: "The native gathers up the fringes of his cloth into a ball and presses it upon the ilio-hypogastric region. He then squats down, the right foot pressed firmly on the ground

The Canadian Medical Protective Association

ORGANIZED AT WINNIPEG, 1901

Under the Auspices of the Canadian Medical Association

THE objects of this Association are to unite the profession of the Dominion for mutual help and protection against unjust, improper or harassing cases of malpractice brought against a member who is not guilty of wrong-doing, and who frequently suffers owing to want of assistance at the right time; and rather than submit to exposure in the courts, and thus gain unenviable notoriety, he is forced to endure black-mailing.

The Association affords a ready channel where even those who feel that they are perfectly safe (which no one is) can for a small fee enroll themselves and so assist a professional brother in distress.

Experience has abundantly shown how useful the Association has been since its organization.

The Association has not lost a single case that it has agreed to defend.

The annual fee is only $3.00 at present, payable in January of each year.

The Association expects and hopes for the united support of the profession.

We have a bright and useful future if the profession will unite and join our ranks.

EXECUTIVE.

President—R. W. POWELL, M.D., Ottawa.
Vice-President—J. O. CAMARIND, M.D. Sherbrooke.
Secretary-Treasurer—J. F. ARGUE, M.D., Ottawa.

SOLICITOR,

F. H. CHRYSLER, K.C., Ottawa.

Send fees to the Secretary-Treasurer by Express Order, Money Order, Postal Note or Registered letter. If cheques are sent please add commission.

PROVINCIAL EXECUTIVES.

ONTARIO—E. E. King, Toronto; I. Olmsted, Hamilton; D. H. Arnott, London: J. C. Connell, Kingston; J. D. Courtenay, Ottawa.

QUEBEC—H. S. Birkett, Montreal; E. P. Lachapelle, Montreal; J. E. Dube, Montreal: H. R. Ross, Quebec; Russell Thomas, Lennoxville.

NEW BRUNSWICK—T. D. Walker, St. John; A. B. Atherton, Fredericton; Murray MacLaren, St. John.

NOVA SCOTIA—John Stewart, Halifax; J. W. T. Patton, Truro; H. Kendall, Sydney.

PRINCE EDWARD ISLAND—S. R. Jenkins, Charlottetown.

MANITOBA—Harvey Smith, Winnipeg; J. A. MacArthur, Winnipeg; J. Hardy, Morden.

NORTH-WEST TERRITORIES—J. D. Lafferty, Calgary; M. Seymour, Regina.

BRITISH COLUMBIA—S. J. Tunstall, Vancouver; O. M. Jones, Victoria; Dr. King, Cranbrooke.

Dominion Medical Monthly

And Ontario Medical Journal

EDITORS:

GRAHAM CHAMBERS, B.A., M.B. WALTER McKEOWN, B.A., M.D.

ASSOCIATE EDITOR:

T. B. RICHARDSON, M.D.

MANAGING EDITOR:

GEORGE ELLIOTT, M.D.

Published on the 15th of each month. Address all Communications and make all Cheques, Post Office Orders and Postal Notes payable to the Publisher, GEORGE ELLIOTT, 203 Beverley St., Toronto, Canada

VOL. XXX. TORONTO, MAY, 1908. No. 5.

COMMENT FROM MONTH TO MONTH.

William S. England, M.D.C.M., McGill University, died suddenly at his home in Winnipeg, Manitoba, on the morning of the 24th of April, the cause of death being cerebral haemorrhage. He was forty years of age. Dr. England matriculated at McGill in 1885 and received his degree with high honors in 1889. After a year, as house-surgeon in the Montreal General Hospital, he located in Winnipeg, where he soon advanced to the front ranks and became one of the leading surgeons of the West. At the time of his death he was Professor of Anatomy in Manitoba Medical College, Chief Surgeon to the Winnipeg General Hospital, as well as being Consulting Surgeon to St. Boniface Hospital of the same city. The late Dr. England was a man of first-class attainment, thorough in his work, and of a quiet, unassuming demeanour. He was a member of the Canadian Medical Association and took a deep and genuine interest in its welfare. We deeply deplore his untimely demise and desire to express our sincere sympathy to his widow, his brother, Dr. Frank R. England, Montreal, as well as to the institutions he was connected with.

The Opportunity of Fraternal Societies to Co-operate in the Campaign Against Tuberculosis is not being neglected. The Canadian Fraternal Congress recently met in Toronto, and it was brought out that something has already been done in this direction. Strong resolutions were passed, calling upon governmental authorities to be up and doing, and it was particularly emphasized that the importance of a leader should not be overlooked nor any longer delayed. That is to say, the campaign against disease in all its various forms, which could be prevented, demanded recognition from Governments in the way of Departments of Public Health, for without a head no material or direct progress could be secured.

Newspaper Propaganda in the Local Press was suggested by one member of the medical section of the recent meeting of the Fraternal Congress, under the supervision of the Provincial Government, which should set aside funds for the purpose: That practitioners should report cases to local medical health officers, not necessarily for the purpose of placarding houses or for the means of directing people to give tuberculosis cases a wide berth, but for the purpose of educating the immediate family as to what they should do and when they should do it.

The suggestion appears to us a good one and would be a strong factor in any plan of campaign. In most homes is to be found the weekly country newspaper, and if a part of the front page of this were bought by the Government, the constancy and regularity of authorized essays or instructions would soon appeal to the readers thereof.

The Appointment of a Travelling Medical Secretary on the Part of the National Association for the Prevention of Tuberculosis is a wise move. In many places where branch associations of the parent organization were instituted they have been allowed to die of dry rot. Already all over the country there are live, active organizations, and a great many physicians are interested in them. These fraternal societies have many lodges in the cities, towns and villages of Canada. All of them have doctors connected with them who would no doubt interest himself sufficiently to create a wholesome, intelligent and enthusiastic interest in the campaign to be waged. Without enthusiasm in any work not much will be accomplished. The army of tubercular germs to be fought is a stupendous one, and it will take the entire forces of human kind to compass its defeat. All that a portion of human kind will accomplish will simply stay its ravages.

To Educate School Children from the beginning of their school lives seems to be proper and right, in matters of sanitary science. Indeed, we have long ago pointed out that physiology should be abolished in connection where it is taught in ordinary school curricula, and sanitary science substituted. Good results will only accrue in years to come when the children are brought up to the right principles of hygiene. All this emphasizes the importance of leadership. Leadership means governmental departments of health.

Were Confederation again to be inaugurated a Minister of Health would be, as he should be, one of the very first of the Ministers to be chosen. A Minister of Health should walk hand in hand with a Minister of Finance. He is of far more importance than a Minister of Justice or any subordinate Minister. If, in a given household, a member is to die, say of tuberculosis, the head of that household would willingly give up all his financial increment for the health of the individual threatened with destruction. If health in a household is of more importance than finances, in the unit of society, the home, is it not of just as much value in the congregation of households, the state? Given good health and finances to all, the importance of a Department of Justice is greatly diminished. Give the people good health and finances, and crime will diminish.

Anything New in Appendicitis is Always Interesting.—Now it is discovered that our method of defæcation is the cause. A short time ago the introduction of steel rollers for the milling of flour, and the small particles of steel which got into the flour, and in process of time got into the appendix, with resultant irritation and inflammation, was cited as the cause. This is scouted, however, by the new aspirant to appendicitis fame. We are taken to India and are told how they do it in India—and the new suggestion as to cause may have a measure of truth in it, as it seems to be well-established that in India there is very little appendicitis. There are said to be two factors at work in India, namely, the free purgation for everyone with anything and the posture assumed in defæcation. To appreciate the latter, the method of defæcating by the native needs to be described. Here is the description in the words of *The Lancet*: "The native gathers up the fringes of his cloth into a ball and presses it upon the ilio-hypogastric region. He then squats down, the right foot pressed firmly on the ground and the right thigh pressing firmly on the right ilio-hypogastric region. The left foot is placed behind, resting on the toes, so that the left thigh forms a large angle with the left abdominal wall. In this attitude the cecum is well compressed, the regurgitation of faeces or gas from the bowel prevented, and a stimulus to downward peristalsis is kept up; thus the cecum is thoroughly emptied and the contents are driven lower. Then the native changes so that the position of the lower limbs is reversed, the left thigh being sharply flexed and the right thigh extended; in this way the lower bowel is emptied." If there is any weight to this theory—and we have heard of it before in connection with hernia, that the sitting rather than the squatting posture favored hernia—then, another field opens itself up for preventive medicine. The sitting urinal will have to be abolished, and one to facilitate squatting, as they do it in India, substituted.

The Splendid Programme the Committee on Papers of the Ontario Medical Association, which meets in Hamilton on May 26th, 27th and 28th, reflects a great deal of credit on the energy and ability of the Committee to provide a programme rarely excelled in medical society work in Canada. We printed this programme and other particulars in our March issue. The scientific side promises so well that it will be difficult to equal it in coming years. Then the Entertainment Committee has not allowed themselves to be outshone by the other aggregation. The entertainments of the social side are going to be of a high order. The two combined cannot afford to be missed by anyone. Remember in purchasing a single first-class ticket to Hamilton to ask the ticket agent for a Standard Convention Certificate, and as soon as you get to the meeting and register, your next duty is to hand that certificate to the General Secretary who will do the rest.

The Provisional Programme of the Coming Forty-first Annual Meeting of the Canadian Medical Association will be sent out early in May in the General Secretary's annual circular. Keep the dates in mind, 9th, 10th and 11th of June.

News Items.

West Toronto is to have a new hospital in the near future.

North Vancouver is to have a new hospital to cost $10,000 and accommodate 12 patients.

The British Columbia Government has granted $15,000 to the Royal Jubilee Hospital, Victoria, for the current hospital year.

The death is announced of Dr. James Stephenson, of Iroquois, Ont., at the age of 73 years. At one time he enjoyed one of the largest practices in Eastern Ontario.

Winnipeg City Council, believing it would be acting outside its powers, has refused to submit a by-law for $225,000 for the purposes of the Winnipeg General Hospital.

Lt.-Col J. T. Fotheringham, M.D., Toronto, will represent the Canadian Army Medical Corps at the Navy, Army and Ambulance section of the British Medical Association in Sheffield, England, in July.

Dr. McNeill, of Prince Edward Island, was recently proceeded against under the Prohibition Act, for writing prescriptions for alcohol alleged to be for other than medicinal purposes. This is the first case of its kind ever before the Canadian Courts.

The new University of Alberta has been organized, the seat of same to be at Edmonton. Prof. H. M. Tory, LL.D., formerly of McGill, is the President. Work will be commenced in September with forty students. There will be a course in arts and one in applied science.

Dr. R. Tait McKenzie, Director of Physical Education at the University of Pennsylvania, has an exhibition of statuettes, bas-reliefs and medals in bronze in the Art Gallery in Montreal. This same work has been exhibited in most of the large cities of the United States and in Europe.

Publishers' Department

INFECTIOUS DISEASES.—As the kidneys are the most active channel of elimination, not only of leucomaines and ptomaines, but also the micro-organisms of infectious and other diseases, it is specially important that elimination be constantly favored by the administration of a soothing and healing diuretic resolvent. This indication is met by administering sanmetto in teaspoonful doses four times a day. This explains why this remedy is so valuable as adjuvant treatment in la grippe, scarlet fever, gonorrhea and other diseases.

INSTEAD OF MORPHIA OR OPIUM.—We meet with many cases in practice suffering intensely from pain, where because of an idiosyncrasy or some other reason it is not advisable to give morphine or opium by the mouth, or morphine hypodermically, but frequently these very cases take kindly to codeia, and when assisted by antikamnia its action is all that could be desired. In the grinding pains which precede and follow labor, and the uterine contractions which often lead to abortion, in tic douloureux, brachialagia, cardialgia, gastralgia, hepatalgia, nephralgia and dysmenorrhoea, immediate relief is afforded by the use of this combination, and the relief is not merely temporary and palliative but in very many cases curative. The most available form in which to exhibit these remedies is in antikamnia and codeine tablets. The physician cannot be too careful in the selection of the kind of codeia he administers. The manufacturers of antikamnia and codeine tablets guarantee the purity of every grain of codeia which enters into their tablets. This not only prevents habit and the consequent irritation which follows the use of impure codeia, but it does away with constipation or any other untoward effect.

THE NECESSITY FOR HEMATICS AFTER MISCARRIAGES.—The more one studies the pathological conditions which follow premature expulsion of a fetus, the more evident it becomes that changes and complications which result from such unnatural termination of a natural process, are little appreciated. There can be little wonder, therefore, that abortions and miscarriages so often give rise to countless female ills, and so frequently lead to lives of more or less chronic invalidism.

Take, for instance, the average case. The whole female organism, as soon as conception takes place, makes preparations to

217-219

Dominion Medical Monthly

And Ontario Medical Journal

Vol. XXX. TORONTO, JUNE, 1908. No. 6.

Original Articles.

MASTER-MINDS IN MEDICINE—JOHN HUNTER (1728-93), GREAT MAN OF SCIENCE AND SURGEON.

Dr. William J. Fischer,

Author of "Songs by the Wayside," "Winona and Other Stories," "The Toiler and Other Poems."

> "I am not anxious about my children, but in their doing well in this world. I would rather make them feel one moral virtue than read libraries of all the dead and living languages."—John Hunter.

In the whole history of medicine it is almost impossible to find a more striking personality than John Hunter. Great man of science and surgeon that he was, we love to look back a few centuries, with pleasure and satisfaction, upon the eventful years that covered his life. "It is impossible," writes one, "to include in one view the multitudinous forms of Hunter's work; you cannot see the wood for the trees."

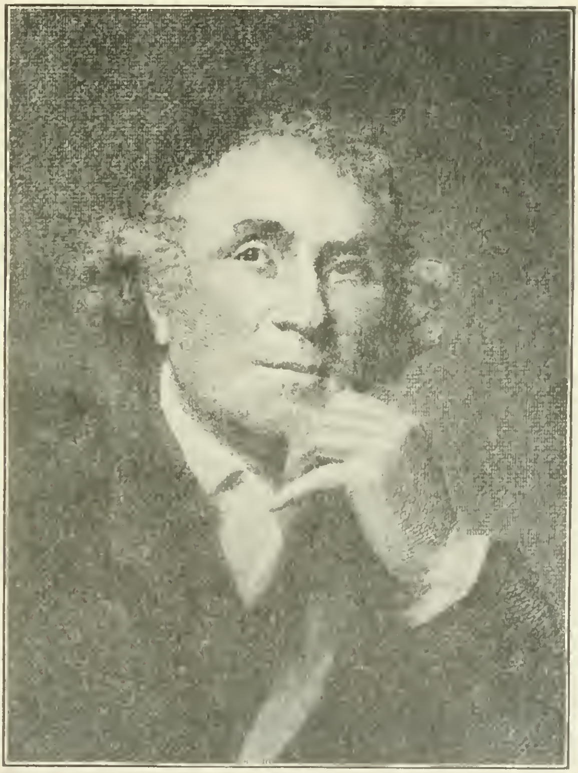
Picture Hunter going around as physician, surgeon, anatomist, biologist, pathologist and naturalist—all these faculties developed to a high degree—and your mind's eye can form a picture of the strong, versatile talent of this great and wonderful man. John Hunter was not an idle dreamer, sitting by the wayside, thinking and spinning out his wonderful theories, his fancy rearing strange castles in the air. No, far from it. Hunter was a builder. He worked upon strong foundations, his work was lasting, and when he died he had built for medicine and surgery a beautiful Day out of the clear Dawn, in which Harvey and Sydenham were fading, twin morning-stars. He was verily a Caesar amongst men. What a pity the spiritual side was so sadly neglected throughout his life! Into his career he crowded work that would have done credit to a number of busy, active minds. In his unremitting toil, he lost sight of the great law of the conservation of energy, and we will see how this over-exertion often cost him, later, many a bitter pang of suffering.

Hunter was not born with the lucky "silver spoon in his mouth." All his greatness was due to himself; he was an indefatigable toiler, and when the end came he died in harness—worker to the last.

"Men have varied in their tendency to careful observation or to mere thinking," writes James Paget. "They have varied as have the several individual mental fitness or inclinations; but the general tendency has been to observation, to the accumulation of facts—as in the work of Pasteur and Lister. This, then, was Hunter's chief distinction: that his mind was set on practical surgery. He was not at first scientific; he had mere business teaching in his boyhood and a natural love of collecting; but after maturity he became scientific, and then was made constantly active in science by his continued love of collecting, and by the use of his collection for the advancement of pathology, and by the study of all structures even remotely connected with the specimens in his collection. Thus his mind, given to science, was engaged in practice; he associated surgery with science and made them mutually illustrative."

Student of nature from boyhood up, student in busy days of practice, Hunter remained a student—a seer to the last. He had not only read with his eyes, but he probed into the things about him and experimented and dissected with his own hands hundreds and thousands of living things in nature's vast garden. "Don't think—try!" he would say. "Be patient! be accurate!" Simple words, it is true, but applicable at the present time to the whole range of medical science and everything pertaining to it. And to-day Hunter, the instructor of such great men as Astley Cooper, Abernethy, Cline, Thompson, Physick and Jenner, is looked upon as one of our greatest clinicians—for his eyes were ever ready to see and his hands to feel.

The history of the Hunters of Hunterston, in Ayrshire, Scotland, goes back to the thirteenth century, and from this great Scotch branch sprang John Hunter, the subject of this sketch. The old manor-house of Hunterston, with its antique tower, stands to this day. In the days of old it was a stronghold; now it is a farmhouse and cattle graze in the fields around it. We have to do with the Hunter branch of Long Calderwood, a small estate seven miles from Glasgow—for here lived John Hunter, his father, and here John Hunter, Jr., was born on February 13, 1728—the last of ten children. Dr. Mathew Baillie says of the father that "he was a man of good understanding, of great integrity and of an anxious temper." His mother, Agnes, a daughter of Mr. Paul Maltster, who was treasurer of the city of Glasgow, was "a woman of great worth and of considerable talent." The Hunters were not rich; they could only afford the most necessary things of life. "Their father," writes one, "from the expenses of a large family, although man-



Sir Joshua Reynolds, Pinxit.

JOHN HUNTER.

aged with great frugality, was occasionally obliged to sell portions of his estate. This increased the constitutional anxiety of his mind, and he was often kept awake in the night from thinking upon the difficulties of his situation.''

In this sketch we are obliged to touch upon one of John's brothers—William—who also did great things for the good of medicine. The lives of the two brothers, sometimes so strangely at variance, are yet so deeply interwoven that no true picture of John Hunter can be drawn without recognizing how deeply they influenced each other.

William Hunter was ten years older than John. He was diligent at school, and in 1731 went to Glasgow College, where he remained for five years. He read theology for a while, but grew tired of it. Then he made application for appointment as schoolmaster of his native village, but the cold hand of circumstance luckily turned him down. Then he fell in with Cullen, a physician of note in his day, and from 1737 to 1740 lived with him, helping him in his practice, which covered many miles. In 1740 he attended Alexander Monro's lectures at Edinburgh, and the following year left for London. Here he soon fell in with Dr. John Douglas, became his assistant, lived with him at Covent Garden, and finally entered St. George's Hospital. In 1743 the young man contributed his first paper to Transactions of the Royal Society, ''On the Structures and Diseases of Articulating Cartilages.'' In those days Samuel Sharp lectured on surgical operations. His health failing, he was forced to abandon his lectures, and in 1746 William Hunter—who through thrift and industry had soon made himself heard—took his place. The lectures were announced thus in the *Evening Post*:

''On Monday, the 1st of February, at Five in the Afternoon, will Begin a Course of Anatomical Lectures, to which will be added the Operations of Surgery with the Application of Bandages. By William Hunter, Surgeon. Gentlemen may have an opportunity of learning the Art of Dissecting during the whole winter season in the same manner as at Paris.''

The same year he toured Holland and also visited Paris, and in the following September was joined in London by John Hunter. Little is known of John Hunter's boyhood. The first seventeen years of his life, however, were spent at Long Calderwood. ''Throughout his boyhood,'' writes one, ''he was good at such games as the village afforded to boys and observant of nature; but deficient in self-control, idle and ignorant—a great disgrace for a Scotch boy whose father was a gentleman, whose brothers were studying law and medicine and who lived within walking distance of Glasgow College.'' He afterward said of himself: ''When I was a boy, I wanted to know all about the clouds and the grasses, and why the leaves changed color in the autumn; I watched the ants, bees, birds, tadpoles and caddis-worms; I pestered people with questions about what nobody knew or cared anything about.'' He hated his school-books; nor did he see the good of learning, even at Oxford, in a couple of months that he wasted there long after boyhood was over. ''They wanted to make an old woman of me, or that I should stuff Latin and Greek at the university,'' he said, ''but these plans failed.''

John was always his mother's blue-eyed boy. His father, being an invalid, could do nothing with him, and consequently the boy very often had his own way. He was a ''cross'' child and would sit and cry for hours when he could not get just what he wanted. He was a very bold child as well, and never seemed to realize what fear was, as the following anecdote will show:

''One night, when he was about twelve years old, having gone to chat a little with some neighbors who lived in a cottage near his father's house, whilst he was sitting by the fire with two or three country people, a most terrible apparition, with a face resembling the devil's, opened the door and looked in upon them. The company, which consisted of a woman and two men, believing it to be what it really represented, were petrified with fear and remained immovable; but John Hunter—who was, as he afterwards confessed, by no means certain that it was not the devil—snatched the tongs from the hearth, and, attacking the spectre, made it roar with pain and run out of the house. This terrible figure proved to be a man dressed up with a painted mask, which in those days none of the country people would have any idea of; and so terrible was the face that amongst the people which he visited that night, going about from one cottage to another, one man fevered immediately and died of the fright.''

Before his father's death John was sent to a Latin school at Kilbride, but books held no attraction for him. At school he was stupid and lazy. There was only one book he loved—the book of Nature—and it lay before him always, open and inviting, full of the living truths that his deep, probing mind could not overlook. ''He would do nothing,'' writes Stephen Paget, ''but what he liked, and neither liked to be taught reading nor writing nor any kind of learning, but rambling amongst the woods, braes, etc., looking after birds' nests, comparing their eggs—number, size, marks and other peculiarities—whilst his two elder brothers had both been to college, and got the same education that the sons of country gentlemen got.''

At seventeen he buried himself in Buchanan's timber-yard at Glasgow, but the work did not suit him and he returned home.

When he was twenty, being still unsettled, his eyes turned towards London. He liked the ring of the voice of that mighty city, calling him, "as is her way with all the best men in Scotland." Then he dispatched a hasty letter to his brother William. He received a favorable answer and the kindliest of invitations, and in a short time he was in London beside his brother, joining hands and brains —companions in work.

Two greater opposites and extremes could not have met than these two brothers. The one was the direct antithesis of the other. Consequently, many little differences arose between them, which resulted finally in a bitter quarrel, but the two became reconciled again before death.

In September, 1748, the two brothers began to work together. William was delighted with John's dissection and made him assistant in the dissecting rooms. Ottley gives us the following pen-picture of him about this time: "He was fond of company and mixed much in the society of young men of his own standing, and joined in that sort of dissipation which men at his age, and freed from restraint, are but too apt to indulge in. Nor was he always very nice in the choice of his associates, but sometimes sought entertainment in the coarse, broad humor to be found amid the lower ranks of society. He was employed by his brother to cater for the dissecting room, in the course of which employment he became a great favorite with that certainly not too respectable class of persons, the resurrection men; and one of the amusements in which he took special pleasure was to mingle with the gods in the gallery, for the purpose of assisting to damn the productions of unhappy authors, an office in which he is said to have displayed peculiar tact and vigor."

Anatomy was John's principal study. The dissecting room was his little world. From sunrise to sunset he slaved with his scalpel, laying up those wonderful stores of knowledge that come to those only who toil patiently and earnestly. His talents were soon recognized, and in a short time he was appointed demonstrator to the students, one of the highest gifts in the hands of the school. To be sure, the position from an aesthetic point of view was not a very desirable one—"hobnobbing with the resurrection men, slaving all day long in unwholesome air, dissecting, demonstrating and putting up specimens"—but the master loved his work and labored incessantly. In conjuring up in our mind the picture of this man we are bound to acknowledge the validity of Ruskin's strong lines: "It is only by labor that thought can be made healthy, and only by thought that labor can be made happy." Here was a man laboring incessantly with his hands, but his colossal mind kept pace with all these activities. Hunter, of all men, derived much happiness from his work.

Soon John fell into another strong man's hands. Cheselden was then in his glory at Chelsea Hospital. Over sixty years old, his fame was recognized on the Continent. He was a great lover of art, an intimate friend of Pope, the poet, and, as one might expect, also very fond of poetry. It is said of him that he was very kind and "notwithstanding the extensive practice he enjoyed, he always, before an operation, felt sick at the thought of the pain he was about to inflict." This was before the day of chloroform anesthesia. For two summers, then, John Hunter followed Cheselden at the hospital clinics, a great deal of minor surgery being entrusted to him. The old master, however, was afflicted with paralysis and died a year after, when his fame was at its zenith. Percival Pott, the other great man of London, was busy at St. Bartholomew's Hospital, and thither John Hunter went after Cheselden's death and was enrolled a surgeon's pupil. Here he walked the wards and assisted at great operations. In his young days, then, Hunter had the great advantage of coming closely into touch with such eminent and conservative surgeons as Cheselden and Pott.

In 1754 John entered as a surgeon's pupil at St. George's Hospital, where he was to serve humanity later for twenty-five years. Hunter's one aim, one hope in life was to become a great surgeon. His going, then, to St. George's started the foundation for such a career.

Only twenty-nine years old, the fortunate Hunter was travelling along a highroad that gave him magnificent views of the undiscovered, untilled fields. The future lay dimly before him—but Hunter cared little for the future. He worked and slaved in the living present. Everard Home has this to say of him, about this time: "It was not his intention to make dissections of particular animals, but to institute an inquiry into the various organisms by which the functions of life are performed, that he might thereby acquire some knowledge of general principles. This, I believe, had never been before attempted, or certainly had never been carried far into execution. So eagerly did Mr. Hunter attach himself to comparative anatomy that he sought by every means in his power the opportunity of prosecuting it with advantage. He applied to the Tower for the bodies of those who died there, and he made similar applications to the men who showed wild beasts. He purchased all rare animals which came in his way; and these, with such others as were presented to him by his friends, he entrusted to the showmen to keep till they died, the better to encourage them to assist in his labors."

No man could work as Hunter did without experiencing, sooner or later, a breakdown. The life-strings were bound to lose their elasticity and snap under such a strain. And the breakdown did come. In 1759 he suffered a severe attack of inflammation of the lungs. The disease weakened the vital powers and he did not build up very rapidly after it. Consequently, the year following, he was advised to go abroad, "having complaints in his breast which threatened to be consumptive." In the following October, then, he was appointed a staff surgeon in the army by Robert Adair, who was with the army at the siege of Quebec. In 1761 he went with the fleet, under General Hodgson and Commodore Keppel, to Belleisle—an island near the coast of France, which was eventually captured. The next year brought war with Spain, and he left, as staff surgeon, on the expedition that was to protect Portugal, which was then allied with England. But even during those two years with the army Hunter did not neglect his medical researches. It was during these days that he gathered material for his great work, "Treatise on the Blood, Inflammation, and Gunshot Wounds"—written thirty years later and published one year after his death. It was a notable work, covering five hundred and seventy-five pages, and contained, also, some physiological observations on digestion and on the organ of hearing in fishes. He always resorted to simple methods of discovery. Thus he tells us how he discovered the sense of hearing in fishes: "In the year 1762, when I was in Portugal, I observed in a nobleman's garden, near Lisbon, a small fish pond full of different kinds of fish. The bottom was level with the ground—the pond having been made by forming a bank all round—and had a shrubbery close to it. Whilst I lay on the bank observing the fish swimming about, I desired a gentleman who was with me to take a loaded gun and fire it from behind the shrubs. The moment the report was made the fish seemed to be all of one mind, for they vanished instantly, raising a cloud of mud from the bottom."

During all these years John was abroad William worked assiduously at London. "He never married," writes Paget; "he had no country-house; he looks, in his portraits, a fastidious, fine gentleman, but he worked till he dropped and he lectured when he was dying." In May, 1763, John returned to London, rented apartments in Golden Square, and started practice as a surgeon. While John was abroad William took every precaution to protect and proclaim his brother's discoveries in anatomy. In 1762 he published his "Medical Commentaries, Part I."—"surely," writes Paget, "one of the strangest books that a physician or a surgeon ever wrote. From beginning to end, it is an incessant attack on those who discovered what the brothers also discovered; every device of italic type, notes of exclamation and long quotations, interrogation and interjection, heavy sarcasm, charges of stupidity, falsehood and flagrant theft—all these things make the book, and there is nothing else in it, hardly one line that is quiet. It was the method of controversy fashionable in his time, full of sound and fury.'' The disputes were over the discovery of the lachrymal ducts in man, congenital hernia, the absorbent system and other matters. These controversies with the Monroes and Percival Pott caused a great deal of bitterness on both sides. ''They must not be taken too seriously,'' writes one of Hunter's biographers; ''it was the fashion of the time to conduct every controversy after the example of Dr. Johnson, as though it were a criminal case at the Old Bailey. Yet it is evident that William, more than other men, was proud of his success, irritable and suspicious; that John, less apt for rhetoric, was not less obdurate over facts or less conscious of his strength; and that each of them, alike, would have his rights, and would hold it a point of honor to fight against the least infringement of them. Therefore, since it was neither sentiment nor temperament that bound the brothers together, nor anything else but work, they would break the bond between them so soon as they began to dispute over their work; and the very vehemence with which they had fought, side by side, against men who claimed the discoveries that they had made working side by side, would at last thrust them apart whenever they should both lay claim to the same discovery.''

William remained all his life in London. His last days were lonely ones, but he worked hard and consoled himself with the fine arts. He was the friend of the artists, Reynolds and Gainsborough. The King also thought of him favorably and made him Physician Extraordinary to the Queen. ''He spent his money on science and art; he gathered for himself and gave to the nation that most wonderful art collection, which alone would perpetuate his name: pictures, portraits, engravings, books, manuscripts, coins and curiosities.'' William cared much for practice and art, but for anatomy he cared more. It was the one ruling passion in his life. He was Vesalius born again. To give full play to all his hopes and fancies, then, in 1768 he built himself a house, lecturing theatre, museum and dissecting rooms, in Great Windmill Street, and here he worked until death relieved him. The study of anatomy had drawn the two brothers' hearts together, but it was soon to separate them. Disputes arose. One claimed the discoveries of the other; other quarrels followed; then came bitterness, the open rupture and the final estrangement. The dispute reached the ears of the Royal Society, and each of the two brothers wrote a letter urging his claim. But on Sunday, March 30th, 1783, William Hunter died—sixty-four years old. The illness came on with an attack of gout. He was a very sick man then, but his lectures at the school were due, and almost when death stared him in the face he hobbled from his house to the school. After the lecture he fainted from exhaustion, was taken home, and two days later sustained a paralytic stroke, which hastened his death. It is comforting to know, however, that the two brothers were together again in those last days. John was at the sick bed continually and gave him tender and skilful care to the end.

When John settled down to practice in Golden Square he was thirty-five years old. First came the years of waiting for practice, that rise from the river of Time like the lean kine in Pharaoh's dream—"poor and very ill favored and lean-fleshed, such as I never saw in all the land of Egypt for badness." Everard Home says that his income for the first eleven years of practice never amounted to a thousand pounds. There were great difficulties in the young man's path. He was only a young surgeon, and there were leaders—men of great experience—then handling the scalpel, Percival Pott towering above all. Then there were Sharp and Warner at Guy's Hospital, and Hawkins and Broomfield at St. George's. "What happened to John Hunter," writes Jesse Foot, "happens to every surgeon in the beginning; there was not employment enough furnished by the practical art to fill up the active hours of the day. . . . He opened a room for dissections and demonstrated subjects to his pupils; he began to make preparations upon his own account. . . . He had not at this time exacted those rigid severities of temperance to which he was observed to adhere at his latter part of life. John Hunter, at this time, and for some time after, was a companionable man; he associated in company, drank his bottle, told his story and laughed with others." Ottley states, too, that in order to witness an interesting or extraordinary case, he would take any trouble or go almost any distance without a chance of pecuniary recompense. And, again, when a call would come to him, often he would throw down his dissecting knife rather unwillingly, and exclaim: "Well, I must go and earn this guinea, or I shall be sure to want it to-morrow."

John soon tired of his home in Golden Square. He wanted more elbow-room, a large place in which he could carry his researches to more successful issue. In 1764 he found a place dear to his heart, a spot called Earl's Court, about two miles from London. He bought two acres of land and built a house thereon. "It so expressed his work and character that the accounts of it suggest something endowed with life; and the news of its demolition, ten years ago, came like the announcement of a man's death. It was not only alive but highly organized, a most complex or heterogeneous structure: a farm, a menagerie, an institute of anatomy and physiology, and a villa decorated in the fashion of the period."

Paget gives us the following interesting description of the place: "At the east end of the grounds, near the gates, was an artificial mound of earth having an opening in its side which led into three small vaults, or cellars, beneath it. On the top of the mound was a little rampart of bricks and tiles, making a toy fortress of it; and there is a tradition that a gun was put here and sometimes fired. This mound was the Lions' Den; here he kept such animals as were most dangerous. In a field facing his sitting room was a pond, where he kept for experiment his fishes, frogs, leeches, eels, and river mussels; and it is said the pond was ornamented with the skulls of animals. The trees dotted about the grounds served him for his studies of the heat of living plants, their movements and their power of repair. He kept fowls, ducks, geese, pigeons, rabbits, pigs, and made experiments on them; also opossums, hedgehogs and rare animals—a jackal, a zebra, an ostrich, buffaloes, even leopards; also dormice, bats, snakes, and birds of prey. Sometimes the larger beasts were troublesome."

One day two leopards escaped from the outhouse and got into quite a "mix-up" with some dogs around. Hunter sprang into the midst of the fray, grabbed the two leopards and carried them back to their den. It is said Hunter did not realize the great danger he was in at the moment of rescue, but, later, when he had time to reflect upon what had occurred, he was so worried and agitated that he almost went into a fainting spell.

Earl's Court, in time, grew with Hunter's growth, and developed into a beautiful spot. The house contained Hunter's study, a drawing-room, a morning-room, artstic bedrooms and a conservatory.

It has been said that a surgeon without a hospital is like an artist without marble. Hunter had done without the marble a long time, but before long he was to chisel out for himself a beautiful career. In February, 1767, he was elected a Fellow of the Royal Society, and two years later—great honor that it was—he was elected one of the surgeons of St. George's Hospital by a majority of seventy-two votes over his opponent, Mr. Bayford. His brother often used to say to him: "Were I to place a man of proper talents in the most direct road for becoming truly great in his profession, I would choose a good, practical anatomist and put him into a large hospital to attend the sick and dissect the dead."

John Hunter was now forty years old and had twenty-five more years to live. The hospital appointment gave him prestige and was the stepping-stone to success that he needed badly. He now, also, had the right to have "house-pupils." They remained with him one or two years, were instructed, boarded and lodged, and paid him one hundred pounds per annum. One of his first pupils was Edward Jenner, the discoverer of vaccination. John Hunter, therefore, breathed easier and was a happier man. During the next few years two important events occurred in his career; he published his first book and was married. He thus announced his marriage, by letter, to his bachelor brother:

"Dear Brother,—To-morrow morning at eight o'clock, and at St. James' Church, I enter into the Holy State of Matrimony. As that is a ceremony which you are not particularly fond of, I will not make a point of having your company there. I propose going out of Town for a few days; when I come to Town, I shall call upon you. Married or not married, ever yours, John Hunter.

"Jermyn Street, Saturday Evening."

It is said that the profits of his first book ("Treatise on the Natural History of the Human Teeth"), which was translated into Dutch and Latin, paid for the expenses of the wedding.

Mrs. Hunter was the eldest daughter of Robert Boyne Home, surgeon to Burgoyne's Regiment of Light Horse. She was twenty-nine when she married Hunter, and was, according to Ottley, "an agreeable, clever and handsome woman, a little of a 'bas bleu,' and rather fond of gay society, a taste which occasionally interfered with her husband's more philosophic pursuits." And then he goes on to relate: "On returning home late one evening, after a hard day's fag, Hunter unexpectedly found his drawing-room filled with musical professors, connoisseurs, and other idlers, whom Mrs. Hunter had assembled. He was greatly irritated, and, walking straight into the room, addressed the astonished guests pretty much in the following strain: 'I knew nothing of this kick-up, and I ought to have been informed of it beforehand; but as I am now returned home to study, I hope the present company will retire.' This intimation was, of course, speedily followed by an 'exeunt omnes.'"

Four children brought sunshine into the Hunter home, two sons, John and James, and two daughters, Mary Ann and Agnes. Mrs. Hunter, much to the annoyance of her quiet, peace-loving husband, moved freely in society and was, it is said, in close touch with all the famous, clever women of her time, among them, Madame D'Arblay and Mrs. Montague. She also dabbled in music and things literary, was a poetess of no mean order, and in her widowhood published a striking volume of poems. It is also interesting to mention that it was she who wrote the words for Haydn's

"Creation." Her lines, "My mother bids me bind my hair," will never die as long as Haydn's music lives. After Hunter's death, Mrs. Hunter became companion to two wealthy young ladies, the wards of a certain Dr. Maxwell Gartshore. She toiled through twenty-seven years of widowhood, honored and respected to the end.

In 1773 John Hunter suffered his first attack of angina pectoris, the malady that was later to cause his death. We quote below his own version of the attack. It is a striking pen-picture of a man's suffering, and very interesting to the profession at this late day: "I had the gout in my feet three springs successively and missed it in the fourth. In the fifth spring, one day at ten o'clock in the forenoon, I was attacked suddenly with a pain nearly about the pylorus; it was a pain peculiar to those parts, and became so violent that I tried every position to relieve myself, but could get no ease. I then took a teaspoonful of tincture of rhubarb, with thirty drops of laudanum, but still found no relief. As I was walking about the room I cast my eyes on a looking-glass and observed my countenance pale, my lips white, and I had the appearance of a dead man looking at himself. This alarmed me. I could feel no pulse in either arm. The pain still continuing, I began to think it very serious. I found myself at times not breathing and, being afraid of death soon taking place if I did not breathe, I produced a voluntary action of breathing, working the lungs by the power of my will. I continued in this state three-quarters of an hour, when the pain lessened, the pulse was felt, and involuntary breathing began to take place. During this state I took Madeira, brandy, ginger, and other warm things; but I believe nothing did any good, as the return of health was very gradual. About two o'clock I was able to go about my business."

For a number of years following Hunter was free from those painful attacks, but when they did return he was almost a daily sufferer. The same year in which the first attack of angina had occurred he gave his first course of lectures, at No. 28 Haymarket, on the "Principles of Surgery." The preparation of these lectures required a great spending of energy. Hunter was not a strong man by any means, hence the work told heavily upon his constitution. It is said that he never lectured without a preliminary dose of thirty drops of laudanum—"to take off the effects of his uneasiness." Like Harvey and Sydenham, Hunter also had his uphill fighting to do. There was opposition on many sides; he had his critics and oppressors. One day he said: "I know I am but a pigmy in knowledge, yet I feel as a giant when compared with these men."

Ten pence apiece was not much pay for these lectures. They brought Hunter little gold for all the "wear and tear" of preparation. But men came there from all parts and sat and listened, and went home wiser; and, no doubt, Hunter found much satisfaction in lecturing to the bright fellows seated round. One day Astley Cooper asked whether he had not, a year before, stated an opinion directly at variance with what he had to say about it then. "Very likely I did," he answered. "I hope I grow wiser every year."

Although Hunter was busy at his lectures, at practice, and at the hospital, he was still experimenting and dissecting. New preparations were being added daily to his museum—worth now about seventy thousand pounds. Of his daily life Ottley gives this account: "He commenced his labors in the dissecting room generally before six in the morning, and remained there till nine, when he breakfasted. After breakfast he saw patients at his own house until twelve, when he made it a point to set forth on his rounds, even though persons might be in waiting for the purpose of seeing him. He dined at four, then the fashionable hour, and gave strict orders that dinner should be ready punctually whether he was at home or not. He was a very moderate eater and set little value on the indulgence of the palate. During many of the latter years of life he drank no wine, and therefore seldom remained long at table after dinner, except when he had company. After dinner he was accustomed to sleep for about an hour, and his evenings were spent either in preparing or delivering lectures, in dictating to an amanuensis the records of particular cases—of which he kept a regular entry—or in a similar manner committing to paper the substance of any work on which he chanced to be engaged."

In January, 1776, a new honor came to Hunter. He was appointed Surgeon Extraordinary to the King. The same year he gave the first of his Croonian Lectures on "Muscular Motion" before the Royal Society. A year later he had another severe illness, akin to angina. When a little better he went to Bath, drank the waters there, but returned in three months again to London, his health little improved.

Nearly all his life Hunter was in financial straits. He could not hold money; he did not know the value of it, and his investments in his museum fairly crippled him. Besides, he was very extravagant, there being no fewer than fifty persons daily provided for at his expense.

Two friends never loved more than Hunter and Jenner, and this sketch would not be complete were we not to mention the abiding, consoling friendship that existed between these great men. "It was a truly interesting thing," writes Baron in his "Life of Jenner," "to hear Dr. Jenner, in the evening of his days, descanting with all the fervor of youthful friendship and attachment on the commanding and engaging peculiarities of Mr. Hunter's mind. He generally called him the 'dear man,' and when he described the honesty and warmth of his heart, and his never-ceasing energy in the pursuit of knowledge, it was impossible not to be animated by the recital.'' The two friends were always corresponding, exchanging views on their various experiments on the one hand and asking advice about some particular disease on the other. Jenner sent Hunter animals for his museum, and Hunter sent him, in return, rare paintings and works of art for his drawing-room. Most of these letters are extant at the present time and make very interesting reading. They mirror the soul of friendship, pure and beautiful. We quote one below. It will give us an idea of the continual interchange of ideas and ''things'' between the two friends:

''Dear Jenner,—I received yours by Dr. Hicks, with the hedgehog alive. I put it into my garden; but I want more. I will send you the picture, but by what conveyance? or to what place? I have a picture by Barrett and Stubbs. The landscape by Barrett; a horse frightened at the first seeing of a lion, by Stubbs. I got it for five guineas. Will you have it? I have a dearer one, and no use for two of the same master's; but do not have it excepting you would like it, for I can get my money for it.

''I am glad you have got blackbirds' nests. Let me know the expense you are at, for I do not mean the picture to go for anything, only for your trouble. Ever yours, J. H.

''N.B.—I should suppose the hedgehogs would come in a box full of holes all around, filled with hay and some fresh meat put into it.''

Toward the end of Hunter's life the daily attacks of angina became almost unbearable, and yet when face to face with death he was writing away for swallows, ostrich eggs, lions, chameleons, and other beasts and birds! Those about him expected that every attack would end the scene. Hunter himself never thought of death. He pictured it as something afar off. The thought of it did not seem to disturb the tranquility of his mind. He was not given to religious meditation; he believed in a God, but outside of this stood the bare walls of a religious creed that did not invite him to take shelter within. Once he did speak of death, however, and someone asked him if it was true that his brother William had praised the pleasantness of it all. ''Aye, 'tis poor work, when it comes to that,'' was John's thoughtful answer. In Hunter's time little was known of the pathology of angina pectoris, hence very little relief could be given him in a medical way. Disturbances of vision and mind, in their turn, brought a long train of symptoms that annoyed and worried him. His nights were long and sleepless, and in vain he longed for the breaking of daylight; but the night was not far off that was to close in upon him.

When William Hunter died John was left unrivalled in the field of anatomy, and at the death of Percival Pott he was easily the first surgeon in all England. "He had now arrived at the highest rank in his profession," pleasantly writes Adams, "and was consulted by all those surgeons who were attached to Mr. Pott during that gentleman's lifetime; he was almost adored by the rising generation of medical men, who seemed to quote him as the schools at one time did Aristotle. . . . His town house was beginning to return all the sums it had cost him: it was spacious and exactly suited for his residence. The ground floor was occupied for professional purposes, and such was the afflux of morning patients that to find room for them the drawing room sometimes was so suddenly deserted that the French grammar and other implements of instruction were left behind."

Four years before Percival Pott's death Hunter read his remarkable paper on "Inflammation of the Veins." It made him many new friends. The next year was the "annus mirabilis" of his life. Though a year of suffering and distress, yet its December witnessed one of the master's most wonderful achievements; though his heart was weakened by disease, his hand was still steady enough to perform for the first time in history the operation for aneurysm, which to this day bears Hunter's name in our modern text-books on surgery—an operation which has since saved thousands of limbs and lives.

The constitution of Hunter was gradually weakening under the strain of all this work. What Thackeray said of Swift applies equally as well to Hunter: "He simply tore through life." In 1786 he could no longer walk, and, consequently, was driven wherever he went. But this was a busy year of writing for him. He prepared and published his book, "Observations on Certain Parts of the Animal Economy," during these months. Then came the appointment of Deputy Surgeon-General of the Army, and Hunter, who thought life still held out long days to him, accepted the position. The following letter to Jenner, about this time, shows us that he had not yet abandoned his other activities:

"Dear Jenner,—I have all your letters before me, but whether I have answered any of them or not I cannot recollect. First, I thank you for your account of the cuckoo, and what further observations you can make I shall be glad to have them, or even a repetition of the former will be very acceptable. I received the bird: it is well known, but I look upon myself as equally obliged to you.

I also received your cocks, which were very good. I have bought the print of Wright, viz., 'The Smiths,' which is his best. There is one more I would have you have. I mean Sir Joshua Reynolds' print of Count Ugolino; it is most admirable and fit only for a man of taste. We had a sale of bad pictures lately, but there were some good heads: I gave a commission for them for you, thinking they would come cheap, but unluckily there were some that saw their merit as well as I, and they sold above my commission. Pictures seem to be rising again. I will not send yours till I hear from you.

"I am told there is a skin of a toad in Berkeley Castle that is of prodigious size. Let me know the truth of it, its dimensions, what bones are still in it, and if it can be stolen by some invisible being. I buried two toads, last August a twelvemonth; I opened the grave last October and they were well and lively.

"Have you any queer fish? Write to me soon and let me have all the news.

"Anny sends, with little John, their compliments. From yours, etc., John Hunter."

In 1787 Hunter had the honor of appearing before the Royal Society with three papers—his monograph on the "Structure and Economy of Whales" being the most important. The Royal Society in return gave him the Copley medal as a mark of appreciation. The same year he was elected a member of the American Philosophical Society. It was also about this time he sat for Sir Joshua Reynolds' portrait, which is in the possession of the Royal College of Surgeons. Hunter was greatly averse to having his picture painted, but Sharp, the engraver, finally persuaded him. About this time, also, Hunter stood godfather to Jenner's first child—"sooner than the brat should not be a Christian," as he states jokingly in a letter of congratulation to Jenner about this time. In 1790 Hunter read another remarkable paper on "Paralysis of the Muscles of Deglutition, with the Method of Feeding the Patient Through a Tube." The year following he was inviting Jenner and Mrs. Jenner to town, asking, by the way, for more hedgehogs. His "Treatise on the Blood, Inflammation, and Gunshot Wounds" also received its finishing touches in those last busy moments. For twenty-five years Hunter had been surgeon to St. George's Hospital, but his years there were not peaceful ones. He clashed with his confreres continually. They were partly jealous of him, and a bitter quarrel finally ensued. Discussions and quarrels arose about things pertaining to the hospital. Hunter sent a pamphlet broadcast saying that "all his attempts to improve the teaching of the hospital had been frustrated." The other three surgeons—Gunning, Walker and Keate—his opponents, sent back answer. The quarrel in a short time was the general topic of conversation all over the city. Then Hunter addressed a letter to the governors of the hospital. A meeting of the Board took place, Wednesday, October 16. What happened there is best told in the words of the biographer: "On the Wednesday morning he saw one of his friends, who called at his house; he told him what was to happen at the meeting, and said that he was afraid there would be a dispute and was sure it would be the death of him. He went into the work-rooms and told his resident pupils some droll stories of how children counterfeit disease. He left his house to pay a visit before he drove to the hospital; he was in good spirits, whistling a Scotch air as he went out. He had forgotten his visiting list; William Clift took it after him to York Street, St. James', the first place on the list. Hunter came out of the house, took the list, and in an animated tone told the coachman to drive to the hospital. The meeting had already begun; he presented the memorial from the young men and spoke on their behalf. One of his colleagues flatly contradicted something he had said. Then came the end. Angina seized him; he turned toward another room to fight out his pain by himself, and Dr. Mathew Baillie followed him; he went a few steps, groaned, and fell into Dr. Robertson's arms—and died."

It was a sad ending to such a great life, but when the master fell it was before the very altar of Medicine—rapt devotee to the last.

Eleven years after Hunter's death his wife composed the following epitaph for a memorial tablet to him in St. Martin's-in-the-Fields:

"Here rests in awful silence, cold and still,
One whom no common sparks of genius fired;
Whose reach of thought Nature alone could fill,
Whose deep research the love of Truth inspired.

"Hunter! if years of toil and watchful care,
If vast labors of a powerful mind
To soothe the ills humanity must share,
Deserve the grateful plaudits of mankind—

"Then be each human weakness buried here
Envy would raise to dim a name so bright;
Those specks, which in the orb of day appear,
Take nothing from his warm and welcome light."

Waterloo, Ont.

Medico-Legal Department

MISNER v. TORONTO AND YORK RADIAL R. W. CO.

Damages—Personal Injuries—Quantum of Damages—Injury to Knee—Conflicting Testimony as to Permanent or Temporary Disability—Assessment of Damages by Jury—Refusal to Disturb—Address of Counsel to Jury—Inflammatory Remarks—Reference to Amount Claimed in Action—Rejection of Evidence—Rule 785—No Substantial Wrong or Miscarriage—Judge's Charge—Allowance or Consideration of Sums Received by Plaintiff from Benefit and Accident Insurance.

Appeal by defendants from judgment of Mulock, C.J., in favor of plaintiff, upon the findings of a jury, for the recovery of $2,500 damages in an action for personal injuries received by plaintiff by reason of a collision between two cars of defendants, upon one of which he was a passenger, owing, as he alleged, to the negligence of defendants.

I. F. Hellmuth, K.C., and C. A. Moss, for defendants.

J. MacGregor and H. M. East, for plaintiff.

The judgment of the Court (Osler, Garrow and Maclaren, JJ.A.) was delivered by

Osler, J.A.:—The plaintiff sustained an injury to his knee joint owing to the negligence of defendants. The latter conceded liability, and the only question at the trial was what damages the plaintiff ought to recover. The jury awarded $2,500, and the only questions involved in the appeal are, whether the damages are excessive, and whether certain sums which the plaintiff had received by way of accident or benefit insurance should not have been deducted or allowed for by the jury.

At the time of the accident, 23rd July, 1906, the plaintiff was employed as a freight checker on the Grand Trunk Railway, receiving wages of $50 per month. In jumping from one of defendants' cars to avoid injury from a collision of that car with another car, he sustained an extremely severe injury to the knee joint of the left leg. He was confined to his bed for three months, and suffered much pain all the time. After that he got about on crutches, which he ceased to use after 1st June in the following year. At the time of the trial he described his condition thus: "the leg is in a partly stiff condition, and sore in the joint; crushing and grinding of the joint inside; a certain amount of locking of the bones; when I step to the ground crooked or on a lump of anything, it is liable to thrown me down; has a tendency to knuckle unless I step very carefully; a certain amount of pain when I rest my weight on it; have not been able to work at my usual employment since, as that required me to be on my feet constantly, and bending it; cannot lift as I used to do, or do any kind of hard work which would cause heavy pressure on the knee; have no other means of support; no trade."

Dr. Machell, who was the first surgeon called to attend the plaintiff, said that the leg was in splints continuously for nine months. If they were taken off for a day or two plaintiff was worse, and they were re-applied. A poro-plastic mould was then applied, which had been on within the past three months, not continuously. At the trial the tissues about the joint were still thickened, caused by inflammation and inflammatory matter thrown out into them. There was a certain amount of grating when the knee was moved in a certain way. The normal movement of the knee was limited. Plaintiff could not walk in same way on that leg as on the other, could not bend it in the same way, could not bear his weight on it at all in a flexed position. On cross-examination the witness said that the knee was better now than it was six or nine months ago, that it was improving slowly, and would continue to improve, but he did not think it would ever be as good a leg as it was before. Had never seen a leg damaged in the way plaintiff's was remain as long (*sic*). Had seen such limbs become useful limbs, but a little knock or blow which would not affect anyone else would be likely to set up synovitis again and lay a man up for weeks or months. Plaintiff would not be able to do work which would require his bending or stooping. . . . Will be a better leg in a year, and better still in five years, unless he gets some intermittent attack of acute inflammation.

Dr. Allen found the plaintiff's leg to be in a condition of acute synovitis, chronic inflammation of the living membrane of the joint, with thickening of the joint. There would always be the thickening and the creaking or grating of the joint. Plaintiff had a permanently weakened joint.

Dr. Richard Nevitt found the knee stiff and enlarged, joint did not work smoothly, creaked and grated; . . . did not think the man would ever recover the full use of that leg.

For the defence, Dr. Clarence Starr had examined plaintiff six weeks before, in the presence of Dr. Machell and Dr. Riordan. He had had synovitis and inflammation of the living membrane of the joint, which had almost entirely subsided. No possibility of his having an absolutely permanent disability. Thought the plaintiff had practically recovered; thought so then; thought he had prolonged his disability by laying up too long and not using his leg enough. Had frequently seen other knees or joints in a similar condition. In the great majority of cases, practically in all of a similar type, patients got a functional use of limb. "I think there is no doubt plaintiff would have proper functional use of the joint, perhaps not as absolutely free a joint as if he had never been injured, but would have all necessary motion and strength in the joint for any work he had to do—for all purposes—except perhaps extremes of motion." . . . In cross-examination, did not agree that the man would always have a tender knee. Saw no reason why he should not have all the use of the knee he required at the end of three or four months; quite sure he will not have a stiff leg, and very much surprised that he has one now.

Dr. Primrose, who had made a personal examination of the plaintiff's knee three weeks before the trial, under the authority of a Judge's order, found the circumferential measurement of the knee a quarter of an inch larger and that of the thigh an inch and a half and of the calf an inch smaller than similar measurements of the other leg. Some grating in the joint . . . attributable to roughing in the living membrane of the joint; this would disappear. He would straighten the leg but not bind it completely—a little less than a right angle. The man was gradually recovering from the effects of the injury, and was still improving. He agreed with Dr. Starr and thought there would be complete recovery of the functions of the joint in the course of three or four months—by the end of the year. Had never known a case of that type which had not recovered. Thought there was no possibility of his having a stiff leg. For all practical purposes he would have the same use of his leg as if it had not been injured. Would have almost complete binding. It was characteristic of that type of injury to the knee that complete binding of the joint was not possible. No reason why he should not be able to perform the work of a car-checker, or of lifting sacks or bags, in two or three months.

Dr. Riordan was of opinion, from his experience of other cases, the nature of the injury, and plaintiff's present condition, that he would make a good recovery, would be fit for his former occupation in three or four months. The witness was in the employment of the Grand Trunk Railway Company, and had some time before the trial—16th September—examined the plaintiff and certified that he was fit to go into some suitable employment. This was for the purpose of getting the plaintiff off the funds of the Grand Trunk Railway Benevolent Association.

Each side has thus examined their expert witnesses, and, while we may think that on the whole it would have been more satisfactory if the jury had given more weight than they seem to have done to the evidence given on behalf of the defence as to the possibility of a substantial recovery of the injured limb at a comparatively early period, it is impossible to say that the jury were wrong, in the face of the evidence given for the plaintiff, in adopting the adverse view, that the injury, which was undoubtedly an extremely severe and painful one, would leave the leg in a permanently weakened condition, which would incapacitate the plaintiff from engaging in the work he had been accustomed to, and in which he had been for a long time in receipt of substantial monthly wages, which, on the most favorable assumption, he would be deprived of for a period of 18 or 19 months. For that period at least he would be a disabled man, and, if the jury came to the conclusion that the disability was likely to continue for an indefinite period in the future, then, taking into consideration the plaintiff's prolonged and severe suffering and his present loss of wages, I am unable to say that the damages awarded are excessive, large as they undoubtedly are.

The defendants also complain of the conduct of the plaintiff's counsel at the trial in referring to the amount of damages claimed and the introduction of irrelevant matter in his address to the jury. This, however, was stopped and corrected by the trial Judge at the time, and in his charge to the jury, and so far as it went, I do not see that a case has been made for interfering with the verdict on this ground. For myself, I must say that as regards stating the damages claimed, I see no harm in it, and everyone who can remember the former practice on a trial at nisi prius must be familiar with the remark so frequently made by the Judge to the jury that within the amount claimed in the declaration the damages recoverable were in their discretion, or to that effect. The practice is, however, now supposed to be discontinued and disapproved of by high authority. But when counsel travel out of the record of the evidence, and make statements which can serve no purpose but to inflame the passions of the jurors, I should be glad to see the trial Judge firmly take the case away from them and dispose of it himself. A few examples of that kind would teach a salutary lesson to counsel who disregard their duty in this particular.

An objection taken on the ground of the rejection of evidence—

the refusal to allow a question to be put in cross-examination of Dr. Starr—is sufficiently answered by the provision of Rule 785. No substantial wrong or miscarriage can be said to have been caused by it. And the objections taken to the Judge's charge are, I consider, covered by what was said to the jury when they were recalled. The plaintiff certainly had no reason to complain of the charge, taken as a whole, but this, I think, is the strength of the defendants' objection to it.

Lastly, it was contended that the trial Judge was wrong in not telling the jury that the sums received by the plaintiff for benefit insurance from the Grand Trunk Railway Benevolent Association and for accident insurance from the Sons of England Benefit Society should be allowed or taken into consideration against the damages. These allowances were payable to and were received by him under his contracts with these bodies and in consideration of payments and contributions he made to their funds.

In my opinion, the charge of the learned Judge in this respect was right. The rule laid down in Hicks v. Newport R. W. Co., 4 B. & S. 403 n., and Grand Trunk R. W. Co. v. Jennings, 13 App. Cas. 800, affirming Jennings v. Grand Trunk R. W. Co., 15 A. R. 477, in cases under the Fatal Accidents Act, has no application where the action is brought by the injured person himself. In the latter case the ground of the action is the wrong done to the individual. "The fact that he has guarded by anticipation against such an event neither diminishes the wrong itself nor the liability of the wrongdoer to pay for it": Mayne on Damages, 6th ed. (1899), p. 538. In the former case it is the pecuniary loss caused by the death "which is at once the basis of the action and the measure of the damages": and, therefore, within defined limits indicated by the above cases, the receipt of insurance money is a circumstance to be taken into consideration by the jury in estimating the pecuniary loss of the survivors: Mayne, ubi supra.

On the whole, I think the appeal must be dismissed, with the usual result as to costs.—*The Ontario Weekly Reporter.*

SMITH v. STEELE.

Contract—Physician's—Sale of Professional Practice—Breach—Damages.

Action for damages for breach of a contract.

G. M. Vance, K.C., and W. H. Wright, Owen Sound, for plaintiff.

W. H. Blake, K.C., for defendant.

Britton, J.:—The parties are physicians resident in Shelburne, Ontario, and this action is for the breach of a contract in writing between them, made on 14th December, 1906. The agreement is not difficult to construe. It refers to different matters, but is one agreement, and the intention of the parties in entering into it was that the defendant should sell to the plaintiff and that plaintiff should purchase the defendant's professional practice, good-will, residence and other property. The plaintiff, however, before settling down to the more extensive practice which would naturally follow from defendant's leaving Shelburne, desired to take a post-graduate course in New York, and to practise with defendant, having the advantage of defendant's personal introduction of plaintiff to defendant's work; so 1st May, 1907, was agreed upon as the time for plaintiff to finally take over defendant's practice and property. This agreement then provided for a partnership from 1st January to 1st May, 1907.

To begin with, the defendant was to take over, so far as possible, all of plaintiff's patients and practice, and the plaintiff was to receive from the defendant, for this, for the time plaintiff would be absent from Shelburne taking this post-graduate course, $7 a week. Upon the return of plaintiff to Shelburne he was to take an active part in this joint practice to be carried on in the office occupied by the defendant. The plaintiff was to allow the defendant $7 a month as his share for the use of the office, including its heating and lighting. The plaintiff was to procure and keep one horse for his own use exclusively. The defendant was to keep one or more horses for his own use exclusively. The plaintiff was to pay for one-half the cost of drugs and horse feed, and he was to get as his share of this partnership business, from the time of his return to Shelburne to actual practice, until 1st May, 1907, one-half the proceeds of such practice.

On 1st May the plaintiff was to pay $2,000, and the defendant was to convey his residence to the plaintiff, and the defendant was to assign and hand over to the plaintiff certain shelving, electric light fixtures, curtains, telegraph line and connections, and stock in a telephone association. The defendant was also to assign his good-will in the practice to the plaintiff. The $2,000 was to be paid as follows: $1,000 in cash, and $1,000 by assuming an outstanding mortgage on the residence for that amount. In addition to the above, the plaintiff was to purchase and take over from the defendant certain stoves, pipes, blinds, linoleum, and drugs, for the further sum of $125, to be paid by the plaintiff to the defendant. The adjustments as to taxes, interest and insurance were to be made as of 1st May, 1907.

The defendant also agreed that upon giving up his practice in Shelburne he would not resume it at or within 15 miles of that place. It is not necessary for the purpose of this action to consider what was the effect, if any, of the plaintiff not having searched the title to defendant's residence before 1st January, 1907. The defendant was in possession, and, no doubt, had a good title, and the plaintiff could accept it without search, if he desired.

The plaintiff left Shelburne for New York on 31st December, 1906. The defendant had from 14th December, 1906, to 1st January, 1907, to consider his contract. He could, at any time between these dates, had he desired to do so, have retreated from and rescinded the agreement, forfeiting to the plaintiff $200, but he did not do so. On the contrary, on 1st January, 1907, the defendant entered upon the performance of it. He took over and continued the plaintiff's practice, paying to the plaintiff, for eight weeks, the $7 per week as stipulated.

The plaintiff returned to Shelburne on 8th March, and announced his readiness to practise with the defendant, but defendant said he did not intend to leave Shelburne, and he gave as a reason for not carrying out his agreement that a Mr. Morton, the mortgagee, would not allow plaintiff to assume the mortgage. That was a matter the defendant need not concern himself about. The plaintiff had agreed to assume it, and if Mr. Morton would not continue it, then plaintiff would be obliged to pay it, and failing to do so, he and not the defendant would in that respect be in default.

On the following Monday (the 11th March) the plaintiff presented himself ready to assume his part of the joint practice, and the defendant refused to permit plaintiff to do so. I am of opinion that this was ample notice to plaintiff of the defendant's intention not to perform his contract.

I find that the refusal of defendant to permit plaintiff to enter upon the practice of his profession with defendant, on defendant's premises, was an absolute and unequivocal notice to the plaintiff of the defendant's intention of renouncing and repudiating the contract. This action of the defendant was not taken from any mistaken construction of the agreement, nor was it a mere expression of present disability to perform it, but it was a complete and unqualified refusal, so as to entitle the plaintiff to sue at once for a breach by the defendant. The plaintiff did not, however, commence this action until 29th August, 1907. I am of opinion that, owing to the conduct of the defendant and the refusal by him, no tender of money or of conveyance by plaintiff was necessary.

The defendant, long after his refusal to allow plaintiff to practise with him, viz., on 23rd April, made a qualified avowal of his readiness to carry out the agreement, by saying that the account of the partnership and the conveyance would be ready after the receipt of an "accepted cheque" payable on 1st May. The account of the partnership here would be only of work by defendant; plaintiff should have joined in the work, but defendant would not allow this. The conveyance and the account of profits were only part of the agreement. The plaintiff did not want defendant's residence or other property without his practice, and he wanted that practice with the good-will of the defendant, and an agreement that defendant would not practise within 15 miles of Shelburne. The defendant never, since the plaintiff's return from New York, offered to carry out the agreement in its entirety—in fact, he could not, after it was broken by defendant, as I have said. The defendant had no right to rescind after breach. The amount named was fixed as a forfeiture in case of rescission.

The defendant received the benefit of plaintiff's practice for the ten weeks, or, to put it on the lowest ground, if defendant did not get any benefit from that, the plaintiff's connection was broken, and he necessarily lost more or less by handing his patients over to a rival doctor in a small place.

As to damages, they cannot be accurately measured. The plaintiff speedily attempted to put himself in a position to recover lost ground, but his whole plan was thwarted, and he is now only one of two, and his rival has, at all events, had the introduction to, and association with, the plaintiff's patients. The plaintiff has sustained substantial loss and damage by defendant's breach. Although the amount named as a forfeiture is not the measure of plaintiff's damage, still, as it was tendered to the plaintiff, it is some evidence that such an amount would not be too much in case of breach.

If the defendant had rescinded before 1st January, 1907, the plaintiff would have received the $200, without having sustained any actual loss other than what would follow from changing his plans about going to New York. I think the plaintiff has sustained damage to the amount of at least $200 by reason of defendant's breach.

The plaintiff is entitled to two additional weeks at $7 a week during his absence from Shelburne. So I find in favor of plaintiff for $214.

I find that the defendant, before action, tendered to the plaintiff $200 in full settlement of any cause of action under the agreement mentioned. This sum was refused by the plaintiff. No money was paid into Court by the defendant.

Judgment for plaintiff for $214 with costs.—*The Ontario Weekly Reporter.*

Proceedings of Societies.

CANADIAN MEDICAL ASSOCIATION, 41st ANNUAL MEETING OTTAWA, JUNE 9th, 10th and 11th, 1908.

The opportunity to visit the Capital when Parliament is in session presents itself for the first time in the history of the Canadian Medical Association. The Forty-first Annual Meeting is the first under the new constitution. Come and help consolidate the profession all over Canada, and get better acquainted with the Canadian Medical Association and also with the Canadian Medical Protective Association.

How to Get There and How to Get Home.

The standard certificate plan prevails in every Province, no one requiring any certificate from the General Secretary. This means that all delegates, on purchasing single first-class tickets to Ottawa, for themselves, their wives and their daughters (no others), should ask for, and get, at the same time a standard convention certificate from the ticket agent for each. These should be left with the Treasurer when registering, to facilitate the signing and returning of same by the General Secretary. When signed they will entitle the holder thereof to reduced transportation, which in all cases must be arranged for at Ottawa. If three hundred are present holding these certificates all will be returned home free;

one-third fare if fifty are present with certificates. B. C. arrangements not completed; special notification by post card.

RAILWAYS AND STEAMBOATS.

The Canadian Pacific Railway, the Grand Trunk Railway, the Intercolonial Railway, the Canadian Northern Railway, the Richelieu and Ontario Navigation Company, and all lines in the Eastern Canadian Passenger Association, are included in the transportation arrangements.

Delegates from points west of Fort William will be permitted to use the Upper Lake Route, Fort William to Owen Sound, or *vice versa*, on extra payment of $4.25 one way, or $8.50 both ways, when travelling on the standard certificate plan.

COMPARATIVE SCHEDULE OF TRANSPORTATION RATES TO OTTAWA.

From	Victoria	$71.10
“	Vancouver	71.10
“	Calgary	55.20
“	Strathcona	57.25
“	Rossland	63.60
“	Nelson	63.60
“	Medicine Hat	49.80
“	Regina	41.95
“	Brandon	36.85
“	Winnipeg	33.80
“	Kenora	33.80
“	Fort William	25.90
“	Port Arthur	25.80
“	Soo, Ont.	14.65
“	Windsor	14.30
“	Chatham	13.00
“	London	11.10
“	St. Thomas	11.35
“	Woodstock	10.30
“	Galt	9.40
“	Toronto	7.70
“	Guelph	9.15
“	Hamilton	8.85
“	Peterboro	5.35
“	Montreal	3.35
“	Kingston	3.70
“	Quebec	8.00
“	St. John, N.B.	17.40
“	Halifax, N.S.	21.80
“	Sydney, C.B.	25.25

Dates of Sale of Tickets, Time Limits, Etc.

Tickets will be on sale in the Eastern Canadian Passenger Association territory—Fort William to Halifax—three days before the first day, Sunday not counted a day, and three days' final return limit after the last day, Sunday not counted. If through ticket cannot be purchased at starting point, purchase to the nearest point where such through ticket can be obtained, and there purchase through to place of meeting, requesting a standard certificate.

West of Port Arthur, tickets will be on sale—Port Arthur to Moose Jaw—June 5th to 8th: west of Moose Jaw to Laggan and Coleman, June 4th to 7th; all certificates to be honored for return journey up to July 9th, 1908.

Place of Meeting in Ottawa.

The meeting place will be St. George's Parish Church Hall, Metcalfe Street—the business hall is just opposite—the Racquet Court. Sectional meetings will be held in Carnegie Library near by.

Certificate Fee.

A special agent from the Eastern Canadian Passenger Association will be in attendance on June 10th to vise the standard convention certificates. Each delegate must pay this officer a fee of twenty-five cents for vising same.

Hotel Accommodation.

Delegates desiring to have hotel or lodgings reserved for them should apply to the hotels below, or to Dr. F. W. McKinnon, Elgin Street, Ottawa:

Russell House—American Plan	$3.00 to $5.00	per day
European Plan	2.00 to 3.00	"
Windsor Hotel—American Plan	2.00 to 3.00	"
Grand Union Hotel—American Plan	2.00 to 3.00	"
Cecil Hotel—American Plan	3.00	"
Alexandra Hotel—American Plan	2.50	"
European Plan	1.50	"

Membership.

The fee for membership remains this year at $2.00. It is payable to the Treasurer, Dr. H. Beaumont Small, Ottawa, at the time of registering. Those desiring to become members for the first time should get information as to procedure from the General Secretary. Transportation rates apply to them as to members.

THE SOCIAL SIDE AT OTTAWA.

On the first afternoon, at 5 o'clock, there is to be a reception, by local members, at the Ottawa Golf Club, Aylmer, Que.; on the evening of the first day a civic reception at the Carnegie Library. During the second day there is to be an excursion to Caledonia Springs; on the evening of the third day a smoking concert. The ladies of Ottawa will entertain the visiting ladies. There will be a visit to the laboratory at the Experimental Farm.

CANADIAN MEDICAL PROTECTIVE ASSOCIATION.

The annual meeting of this Association will take place at 12 a.m., June 9th. Dr. R. W. Powell, Ottawa, the President, will have a splendid report to present. The great success of this Association should encourage all Canadian practitioners to become members.

MILITARY SURGEONS.

This year the Military Surgeons, under the Presidency of Dr. G. Sterling Ryerson, Toronto, meet as a section of the Canadian Medical Association.

ADDITIONAL INFORMATION.

Additional information of a local character may be obtained from the local Secretary, Dr. Wm. Hackney, 396 Somerset Street, Ottawa. Any general information from the General Secretary, Dr. George Elliott, 203 Beverley Street, Toronto.

PROVISIONAL PROGRAMME.

Presidential Address—Dr. F. Montizambert, Ottawa.

Address in Medicine—Dr. Risien Russell, London, England.

Address in Surgery—The Surgical Rights of the Public—Dr. John C. Munro, Boston, Mass.

MEDICAL SECTION.

Dr. John T. Fotheringham, Toronto, Chairman: Dr. Alex. J. MacKenzie, Toronto, Secretary.

Our Experience in Broncho-Pneumonia—Dr. C. S. McVicar, Hospital for Sick Children, Toronto.

The Differential Diagnoses of Some Forms of Mental Disease and a Note as to Treatment—Dr. G. J. Fitzgerald, Toronto.

Out-Patients' Clinics for the Tuberculous Poor—Dr. Harold C. Parsons, Toronto.

On the Choice of a Climate—Dr. Geo. D. Porter, Toronto.

Hæmoptosis in Pulmonary Consumption—Dr. J. H. Elliott, Toronto.

Spina Bifida Associated with Syringo Myelia—Dr. Colin D. Russel, Montreal.

Meningitis—Dr. A. E. Ranney, North Bay.

Some Interesting Complications of Pulmonary Tuberculosis and Their Treatment—Dr. J. K. M. Gordon, Gravenhurst.

Ergot—Drs. E. V. Henderson and W. H. Cronyn, Toronto.

Some Unusual Cases of Rheumatism—Dr. A. McPhedran, Toronto

What Shall We Say to Our Neurasthenic Patients?—Dr. G. S. Young, Prescott.

Pernicious Anaemia, Report of Cases in Country Practice—Dr. James Baird, Hemmingford, Que.

Some Further Observations on Pneumo-Thorax—Dr. W. F. Hamilton, Montreal.

Myo-Cardial Change in Valvular Disease—Dr. H. B. Anderson, Toronto.

Treatment of Meningitis with Flexner's Serum—Drs. F. G. Finley and P. G. White, Montreal.

The Diagnostic Value of Perversion of Gastric Secretion—Dr. Graham Chambers, Toronto.

The X-ray as a Therapeutic Agent: Its Indications and Untoward Effects, Having Special Reference to the Action Upon the Generative and Internal Secretory Organs of the Body—Drs. Omar Wilson and J. Harold Alford, Ottawa.

Surgical Section.

Dr. Geo. E. Armstrong, Montreal, Chairman; Dr. Edward W. Archibald, Montreal, Secretary.

Title to be announced—Dr. James Bell, Montreal.

Congenital Pyloric Obstruction—Dr. F. J. Shepherd, Montreal.

Temporary Colostomy as a Curative Agent in Post Operative Fæcal Fistula of the Colon—Dr. J. M. Elder, Montreal.

The Administration of the General Anesthetic from the Standpoint of the Operator—Dr. H. A. Beatty, Toronto.

Reports of Two Large Abdominal Tumors with Remarks—Dr. A. B. Atherton, Fredericton, N.B.

Title to be announced—Dr. A. Primrose, Toronto.

Diagnosis and Treatment of Ureteral Calculus, accompanied by Case Reports—Dr. A. E. Garrow, Montreal.

Exhibition of Cases to Show Result of Operations Reported at the London Meeting, 1903.

Advanced Hip-Joint Without Shortening—Dr. R. P. Robinson, Ottawa.

Calculus of Ureter Removed per Vaginam—Dr. Walter McKeown, Toronto.

COMBINED MEDICAL AND SURGICAL SECTION.

Discussion on General Peritonitis.

Carcinoma of the Buccal Cavity, Etiology and Treatment—Dr. A. R. Robinson, New York.

Subdural Hæmorrhage and Its Surgical Treatment—Dr. E. W. Archibald, Montreal.

On the Use of the Ortho-Diagraph in Medicine—Dr. Robert Wilson, Montreal.

PUBLIC HEALTH SECTION.

Dr. Chas. A. Hodgetts, Toronto, Chairman; Dr. Robert Law, Ottawa, Secretary.

Address by the Chairman, Dr. Hodgetts.

Title to be announced—Prof. Starkey, Montreal.

Title to be announced—Dr. J. D. Lafferty, Calgary.

Title to be announced—Dr. Seymour, Edmonton.

The Medical Inspection of Schools—Dr. John Hunter, Toronto.

LABORATORY WORKERS.

Dr. W. T. Connell, Kingston. Chairman; Dr. A. R. B. Williamson, Kingston, Secretary.

Anæsthesia in Laboratory Work—Dr. V. E. Henderson, Toronto.

Chorion Epithelioma in the Testis—Dr. C. B. Keenan, Montreal.

A Criticism of the Ammonium Nitro—Molybdate Method of Detecting Organic Phosphorus in the Tissues—Geo. G. Nasmyth, M.A., Ph.D., and E. Fidler, B.A., M.B., Toronto.

The Bio-Chemical Characteristics of Bacillus Influenzæ—Dr Handford McKee, Montreal.

Title to be announced—Prof. J. George Adami, Montreal.

Title to be announced—Prof. J. J. Mackenzie, Toronto.

Title to be announced—Dr. C. W. Duval, Montreal.

The National Importance of Pure Milk—Dr. Chas. J. Hastings, Toronto.

Contribution to the Pathology of Tumors of the Lung—Three cases of Sarcoma: (1) Primary. (2) Secondary—Dr. E. St. Jacques, Montreal.

On the Technique of the Study of Complement Deviation—Dr. A. H. U. Caulfeild, Toronto.

COMBINED PUBLIC HEALTH AND LABORATORY WORKERS.

Water Supplies and Water Analysis—Dr. J. A. Amyot, Toronto; Dr. T. A. Starkey, Montreal; Dr. Gordon Bell, Winnipeg; Dr. W. T. Connell, Kingston, and others will contribute to this discussion.

SECTION ON EYE, EAR, NOSE AND THROAT.

Dr. H. S. Birkett, Montreal, Chairman; Dr. Handford McKee, Montreal, Secretary.

New Therapeutic Notes—Dr. Wilfrid Beaupre, Quebec.

Title to be announced—Dr. G. H. Mathewson, Montreal.

Title to be announced—Dr. Roy, Quebec.

Some Points in the Technique of Sub-mucous Resection of the Nasal Septum—Dr. C. M. Stewart, Ottawa.

Ulceration of the Cornea, Etiology and Treatment—Dr. Handford McKee, Montreal.

(1) Calcified Fibroma of the Orbit; (2) A Case of Bilateral Lardaceous Infiltration of the Buccal Mucous Membrane, not hitherto classified—Dr. J. N. Roy, Montreal.

SECTION ON MENTAL AND NERVOUS DISEASES.

Dr. W. H. Hattie, Halifax, Chairman; Dr. J. C. Mitchell, Brockville; Secretary.

Some Clinical Considerations of Dementia Præcox—Dr. Elbert M. Somers, Ogdensburg, N.Y.

Hydrotherapeutics when Applied to Mental and Nervous Diseases—Dr. A. T. Hobbs, Guelph.

The Differential Diagnosis of some forms of Mental Diseases, with a Note as to Treatment—Dr. Gerald Fitzgerald, Toronto.

Title to be announced—Dr. E. W. Archibald, Montreal.

Title to be announced—Dr. Colin Russel, Montreal.

Some Points in the Etiology of Progressive Muscular Atrophy, with Especial Reference to Heredity—Dr. D. A. Campbell, Halifax.

A Study of Thomsen's Disease (Myotomia Congenita)—By a sufferer from it.

Insanity and the General Practitioner—Dr. Moher, Brockville.

Hysterical Manifestations Occurring After the Removal of a Brain Tumor—Dr. D. A. Shirres, Montreal.

SECTION ON GYNECOLOGY AND OBSTETRICS.

Dr. F. A. L. Lockhart, Montreal, Chairman; Dr. D. Patrick, Montreal, Secretary.

Title to be announced—Dr. Wm. Gardner, Montreal.

Some Cases of Caesarian Section—Dr. R. E. Webster, Ottawa.

Pregnancy and Heart Troubles, with Report of Cases—Dr. J. C. Cameron, Montreal.

Title to be announced—Prof. de L. Harwood, Montreal.

Cases of Vicarious Menstruation—Dr. Blakeman.

Uterine Inversion, with the Report of a Case—Dr. D. Patrick, Montreal.

The Role of the Gonococcus as a Factor in Infection, following Abortion or Full Term Delivery—Dr. Fraser G. Gurd, Montreal.

Report of Second Case of Chorio-Epithelioma—Dr. F. A. L. Lockhart, Montreal.

Thoroughness in Abdominal Surgery—Dr. A. Lapthorn Smith, Montreal.

Pubiotomy—Edward D. Farrell, Halifax, N.S.

Title to be announced—Dr. D. J. Evans, Montreal.

The Induction of Labor—Dr. Adam H. Wright, Toronto.

MILITARY SURGERY.

Dr. G. Sterling Ryerson, Toronto, Chairman; Dr. T. H. Leggatt, Ottawa, Secretary.

Addresses by the President of the Association of Medical Officers of the Militia of Canada, Colonel Ryerson, M.R.D., Toronto.

On the Advisability of Forming a Canadian Ambulance and Red Cross Association—Lieutenant-Colonel Jones, D.G.M.S., Ottawa.

Title to be announced—Lieutenant-Colonel Cameron, A.M.C., to V. Field Ambulance.

The Territorial Army Medical Corps, and the Canadian Medical Services: A Comparison—Lieutenant-Colonel Sponagle, A.M.C.

Title to be announced—Captain H. A. Kingsmill, 7th Fusiliers.

Some of the Difficulties Met With in Camp Sanitation—Captain G. M. Campbell, 7th C. A.

Title to be announced—Lieutenant-Colonel Maclaren, P.M.C., M.D. No. 8.

The Present Aspect of Military Sanitary Work—Major L. Drum, P.A.M.C.

Ready and Simple Tests for Water, Milk and the Detection of Disease in Animals—Captain L. M. Murray, A.M.C., No. 1 Field Ambulance.

Physician's Library.

Saunders' Forthcoming Books.

Messrs. W. B. Saunders Company, medical publishers, of Philadelphia and London, announce for publication before June 30th, a list of books of unusual interest to the profession. We especially call the attention of our readers to the following:

"Bandler's Medical Gynecology," treating exclusively of the medical side of this subject.

"Bonney's Tuberculosis."

"Volume II., Kelly and Noble's Gynecology and Abdominal Surgery."

"Volume IV., Keen's Surgery."

"Gant's Constipation and Intestinal Obstruction."

"Schamberg's Diseases of the Skin and the Eruptive Fevers."

"John C. DaCosta, Jr.'s, Physical Diagnosis."

"Todd's Clinical Diagnosis."

"Camac's Epoch-Making Contributions in Medicine and Surgery."

All these works will be profusely illustrated with original pictures.

Manual of Medical Jurisprudence, Toxicology and Public Health. By W. G. Aitchison Robertson, M.D., D.Sc., F.R.C.P.E., F.R.S.E., Lecturer on Medical Jurisprudence and Public Health, School of Medicine, Royal College of Surgeons, Edinburgh, etc., etc. With 39 illustrations. London: Simpkin, Marshall & Co., Limited.

This is a fine little concise manual for medical students on the above subjects. It includes all the student requires for examination purposes. We recommend it heartily to them.

Confessio Medici. By the writer of "The Young People." Price, $1.25. The Macmillan Company of Canada, Limited, 27 Richmond St. W., Toronto.

The book is a series of essays on Vocation, Hospital Life, An Essay for Students, A Good Example, Practice, The Discipline of Practice, The Spirit of Practice, Wreaths and Crosses of Practice, Retirement, The Very End. We have looked it over time and again, read parts of it here and there, have found a good thing now and then, decide it is idealistic, that it does not lend itself readily to review, so simply state our impression. We have not yet come to any decision as to why it was written, so do not wish to be too rash in criticism, as it may have the meat hidden away somewhere we have not been able to locate. Therefore, to those who are interested, we would say, read, mark, and inwardly digest for yourself.

The Toiler. By William J. Fischer, M.D., Waterloo, Ontario, author of "Songs by the Wayside."

In this issue we publish the third of the series of "Master Minds of Medicine—John Hunter," by Dr. Fischer; and on our editorial table lies a copy of his latest production in literature, "The Toiler." It is a volume bubbling with purity and beauty of thought, as chaste as it is delicate. It proves that Dr. Fischer is gradually establishing for himself a place in Canadian literature. It is dedicated to two well-known Canadian medical men, Drs. John Wishart and H. A. McCallum, London, Ont. We here reproduce in full Dr. Fischer's poem:

The Doctor.

He stands, 'twixt life and death, through busy cares,
An angel, in the eyes of toiling Pain;
Strong men look up at him through tearful rain,
Strong women sound their noblest, purest pray'rs
Into his ears; sick children, weak, in pairs,
Rest in his Love's bright bed; Sorrow has lain
Therein, and Pity wept. Now and again
God brings him soul-strength up life's winding stairs.

A worker in the low, degraded street,
He sees the shadow with the shining light,
And touches black souls as the pure priest can;
He sees Pain, should'ring her old cross so sweet,
And, through the dawn, the live-long day and night,
He feels the pulse of God in ev'ry man.

Dominion Medical Monthly

And Ontario Medical Journal

EDITORS:
GRAHAM CHAMBERS, B.A., M.B. WALTER McKEOWN, B.A., M.D.

ASSOCIATE EDITOR:
T. B. RICHARDSON, M D.

MANAGING EDITOR:
GEORGE ELLIOTT, M.D.

Published on the 15th of each month. Address all Communications and make all Cheques, Post Office Orders and Postal Notes payable to the Publisher, GEORGE ELLIOTT, 203 Beverley St., Toronto, Canada

VOL. XXX. TORONTO, JUNE, 1908. No. 6.

COMMENT FROM MONTH TO MONTH.

The Tuberculous Immigrant.—In our May issue we published an address on the above subject, which was delivered by Dr. Peter H. Bryce, Chief Medical Officer for the Department of the Interior, at Ottawa, before the annual meeting of the Canadian Association for the Prevention of Tuberculosis. When the country is fighting strenuously the situation as it presents itself to-day, there is every need on the part of the medical health officers, examining immigrants at ports of entry, to do it with the utmost care. According to Dr. Bryce's address, we fully believe this has been done as carefully as it could be done, when we consider that only one in every 14,000 examined was admitted tuberculized. Dr. Bryce makes a strong point when he states money can be got for any and every scheme, but not for fighting the great white plague. Governmental and municipal grants are small, and almost given grudgingly; private contributions are practically nil. Probably the proper scheme has not yet been devised to secure the financial ammunition. If medical health officers were as zealous in combating tuberculosis as they are in attacking smallpox or diphtheria epidemics, better advance would be made. Probably it would be well to have compulsory notification on the part of physicians, not necessarily for red, blue or yellow placards, to scare the passer-by away, but in order to place the onus of responsibility upon the medical health officer, to deal with these cases as with smallpox, etc. We will then see in the estimates of health officers such an item as this: "For dealing with cases of consumption, $10,000." The money would be forthcoming in every municipality, and scarcely a taxpayer would raise an objection to the fraction of a mill so levied on his assessment.

The Wasserman Reaction for the Diagnosis of Syphilis.—Some two years ago Wasserman introduced a new method for the diagnosis of syphilis, whether in acute or tertiary form, the reaction being based on the use of the serum of apes artificially infected. The method, however, is so elaborate in its technique that it cannot be carried out except in a properly equipped laboratory. Wasserman employed an extract of the liver of a child which had died of congenital syphilis. An immune serum was obtained by treating monkeys with this extract. But he later found that, in a patient suffering from syphilis, serum could be got which took the place of the immune serum from the monkey. In other words, the specific immune body for syphilis is contained in the serum of such syphilized individuals. It is valuable only from a diagnostic standpoint, and it would appear from observations, in confirmation of Wasserman's findings, that it is a specific reaction, and is found only in those who have or have had the disease. It has been positive in hemiplegia, negative in simple apoplexy; also in cases of paralysis and tabo-paralysis. One observer and experimenter, Schutze, says: (1) The longer the syphilis virus has remained in the body, and the more frequently it has produced symptoms, the greater is the amount of "antibody" in the serum, and therefore the more regularly does the reaction show a positive result; (2) the earlier that mercury has been employed in the treatment of the disease, and the longer that treatment has been carried out, and the more frequently it has been applied, the smaller will be the amount of "antibody" contained in the serum, and the more often will the test be negative.

The Strength of Tetanus Antitoxin can now be measured by four methods: There is the German method of Behring; that of Roux, of France; the Italian—Tizzoni; the American method. The European, being complicated and difficult to carry out, not accurate, admittedly unsatisfactory, brings into prominence the American—simple, direct and accurate. It is the result of six years' careful work in the National Hygienic Laboratory. Since the establishment and promulgation of the American standard, the unit strength of tetanus serums on this market have decidedly greater antitoxic value. The American unit is thus defined: "The immunity unit for measuring the strength of tetanus antitoxin shall be ten times the least quantity of antitetanic serum necessary to save the life of a 350-gram guinea pig for ninety-six hours against the official test dose of a standard toxin furnished by the Hygienic Laboratory of the Public Health and Marine Hospital Service." The toxine is given out to licensed manufacturers to prepare the antitoxin.

Tetanus in man is not a widespread disease as compared with other plagues. Hippocrates in his writings, described it and told of its diagnosis and prognosis. Aretaeus, of Kappadoza, has given us a description of lockjaw, which holds to the present day. He described an opisthotonus, an emphrothotonus and a tetanus, as the muscles of the back, abdomen or of the body generally were involved. Later pleurothotonus was added, when the muscles of one side were especially affected. Through the Middle Ages there was no advance made in the knowledge of tetanus. About 1860 Herberg and Rose, and Billroth and Spencer Wells, believed it a zymotic disease, and that the spasms were caused by a poison in the blood, like strychnine. In 1876 Strumpell declared tetanus to be due to an infection. In 1884 Carle and Radirie first successfully showed that the disease was transmissible. In studying the micro-organisms of soil or ground tetanus, Nicolaier, in 1884, always found a slender bacillus in the pus. Rosenbach, in 1886, found a similar bacillus, with a round terminal spore, in a case complicating frost gangrene in man. Kitasato, for the first time in 1889, grew the bacillus in pure culture, and successfully proved this bacillus was the real cause of tetanus. From further experiments and observations, he concluded we were dealing with an intoxication and not an infection. In 1890 Behring and Kitasato laid the foundation of serum therapy when they published their great work on the tetanus toxin and the tetanus antitoxin.

Canadian Medical Association.—Once again we desire to draw the attention of our readers to the forty-first annual meeting of the above Association in Ottawa on the 9th, 10th and 11th June. Complete railway and steamboat arrangements are secured, and the Standard Certificate Plan prevails in every Province. The provisional programme has been sent out to members, to those on the programme and to the medical press. It is the best provisional programme ever issued from the office of the General Secretary in the past seven years. From it it will appear that the idea of meeting in different sections, as set out in the new constitution, and as adopted now for the first time, will quite evidently prove a popular one. There are also many who have never before had the opportunity to visit the Capital while Parliament was in session, and the opportunity presents itself now for the first time. The men in Ottawa have spared no pains to look well to the social side, and there promises to be a very fine meeting socially, as it will sure to be scientifically. Can you, reader, afford to miss this meeting?

News Items

Dr. H. L. Collins, of Kinloss, has gone to Edmonton.

Dr. Charles A. Hebbert, of Hawkestone, Simcoe County, has been appointed an associate coroner for Nipissing District.

Dr. John R. and Mrs. Parry and daughter, of Hamilton, are guests of Mr. and Mrs. R. A. Harrison. Dr. Parry will leave for Europe next week.

Dr. W. Russell, house surgeon at Victoria Hospital, London, has resigned and left for Highgate to practise there. Dr. John McGillicuddy has also handed in his resignation.

Dr. W. C. Gilday, Toronto, who left last September to take up a special course in London, England, has passed his conjoined examination, and received the degrees of M.R.C.S. and L.R.C.P.

Dr. A. A. Jackson, formerly of Everett, has purchased the practice of Dr. Lepper at Bolton. Dr. Jackson has just returned from London, England, and Dublin, Ireland, where he took postgraduate courses.

Dr. G. V. Harcourt, who has built up a large practice in Powassan during the past few years, has disposed of it to Dr. Carveth, of Toronto, who has already assumed his new duties and made many friends.

Dr. John M. Adams, chief house surgeon at Victoria Hospital, London, has handed in his resignation, to take effect on May 1. Dr. Adams has been on the staff of the hospital for one year. After a holiday he intends to go to Seattle to commence practice there.

Dr. Austin Huycke, who has been taking a post-graduate course in Bellevue Hospital, New York, was in Warkworth this week, and is visiting his brothers in that vicinity. Dr. Huycke intends leaving shortly for Vancouver, where he will take up his practice.

Brantford will erect a consumption hospital this year. A promise of liberal support from the Government has been secured, augmented by handsome private subscriptions. Medical men of the city have the project in hand, and state that it is in such a condition as to warrant definite announcement concerning the prospects.

Muskoka Sanatoria Medical Staff.—W. B. Kendall, M.D., C.M., L.R.C.S., L.R.C.P., Physician-in-Chief of the Muskoka Cottage Sanatorium, has been appointed Physician-in-Chief of both the Cottage Sanatorium and the Muskoka Free Hospital for Consumptives: and C. D. Parfitt, M.D., M.R.C.S., L.R.C.P., Physician-in-Chief of the Free Hospital since its opening in 1902, becomes Resident Consultant of the two Sanatoria, each giving his entire time and effort to these institutions. The medical staff will also include a trained resident pathologist and two assistant doctors, together with a staff of specially trained nurses.

Publishers' Department.

THE PERIODICAL NERVOUS HEADACHE.—Among the most common ailments, especially among the young, are the periodical nervous headaches, and three or four times as many females as males are afflicted with them. Dr. A. F. Schellschmidt, of Louisville, Ky., states that "they generally manifest themselves about the time of puberty and are very severe for a few years, but with increasing age the attacks become less frequent, until at the age of forty they seem to almost disappear, and are seldom or never seen after fifty. They are associated with vertigo, nausea and vomiting. The pain is in and around the eyes, and while the attack lasts there frequently is partial or total blindness. Those who complain of this trouble suffer from prodromal symptoms for several days before the attack shows itself in an active form, which symptoms differ in different patients. When treatment is demanded it is more for the pain than anything else. Opium will relieve, but does more harm than good, as it leaves the system in a worse condition to resist a subsequent attack. Antikamnia tablets give great relief and act quickly. An emetic will sometimes abort an attack. The bowels should be kept open, and those diuretics which hasten the elimination of the urea should be administered. If the attacks are due to a reflex nervous condition the cause must be sought and treated. The adult dose of Antikamnia tablets best suited for the relief of these headaches is two every three or four hours."

THE ANEMIAS OF CHILDHOOD.—The anemias of early life are usually sequels of the acute diseases common to this period. The exanthemata are especially liable to be followed by a depreciation of blood quality and a protracted convalescence often depends on this one condition alone. Moreover, the frequency with which physical stigmata or infirmities actually date from an attack of measles, scarlet fever, diphtheria or any of the other similar diseases of childhood, can often be properly laid at the door of insufficient or improper care during the very important stage of convalescence from these diseases. It should be recognized that the hematogenic function, while exceedingly active in childhood, is yet very susceptible to all inhibitory influences, among which the toxins generated in the course of the acute diseases are most common. When a storm infection of measles, scarlet fever or any of these similar ailments is passed, there must follow a period of reconstruction. If

For COUGHS and
THROAT IRRITATION

PINOCODEINE

"FROSST"

Each fluid drachm contains:—Codeine phosphate ⅛ gr. combined with Pinus Strobus, Prunus Virginiana, Sanguinaria Canadensis, Populus Balsamifera and Chloroform.

As a routine expectorant, it is the same reliable product that has had the support of the profession for the past eight years.

**STOPS COUGHING,
ALLAYS IRRITATION,
ASSISTS EXPECTORATION**

Perfectly safe with patients of any age.

For GRADUAL or
SUDDEN HEART FAILURE

Elixir Digitalin Co. "Frosst"

Each fluid drachm contains:—Digitalin 1-100 gr.
Nitroglycerine 1-100 gr. Strychnine 1-50 gr.

The original product that has created the demand for this energetic stimulant.

CHARLES E. FROSST & CO.
MONTREAL, CANADA

the damage has been slight as a result of a light storm or an unusually strong structure, the reconstructive process places little demand on the resources of the individual. But if the storm has been unusually severe and the structure ill-prepared to meet its fury, the rebuilding process is certain to be long and laborious. Deficiency in the quality of the blood is one of the greatest handicaps at this time, and the clinician should recognize this as one of the most important indications for therapeutic assistance. The action of Pepto-Mangan (Gude) is always very marked in these cases, and it is interesting to note how rapidly children respond to its upbuilding influence. A marked increase in hemoglobin at once follows its use, and the red cells multiply rapidly. With improvement in the blood constituents there is a corresponding increase in the whole bodily tone, and it only takes a few days to carry the average patient safely away from the dangers of a trying period. Pepto-Mangan (Gude) is, therefore, a very valuable tonic in childhood, and, unlike so many of the ordinary hematinics, it can be given with impunity to the youngest infant. It has marked alterative properties, and in strumous or marasmic conditions it is especially valuable. It is absorbed rapidly, and is never rejected by even the weakest stomach. In early life its administration is best effected by giving it in milk, and the dose should range from ten drops to two teaspoonfuls, depending, of course, on the age of the patient.

Nutrition in Chronic Pathological Processes.—The area of nutrition is indeed a large one, and the number of subjects embraced therein are many. Before classifying these elements, we must define a general cell tonic, offering in part the following definitions: Any agent or measure which directly or indirectly increases to a more or less permanent degree the textual resistance and normal functional tone of the cellular structure. This classification will in part distinguish the true cell tonic from all stimulants, as well as from agents which influence abnormally and incompletely certain features of the cell function, such as agents which increase cell disintegration without proportionately increasing cell reconstruction. The true cell tonic must increase in all proportions the constructive, destructive, and eliminative functioning of cell nutrition, and in doing so, it will supply a complete and adequate nutrition, thereby increasing the resistance of the normal vital functional capacity of all the body cells. The knowledge at hand to-day of physiology and histology justifies the conclusion that the vital functional capacity of the non-connective tissue cells can only be permanently benefited by increasing their

THE HOUSE OF QUALITY

REGISTERED

A Clothing Opportunity

Lack of space and interior departmental changes render it imperative that we should clear the balance of our stock of men's clothing.

Most well-dressed men know that we sell the best tailored men's goods in Canada.

WE HAVE OPENED A STORE AT

93 YONGE STREET

(NEXT DOOR TO SHEA'S THEATRE)

AND ANNOUNCE A FINAL CLEARANCE AT DISCOUNTS OF FROM

**20 PER CENT. to 50 PER CENT.
OFF REGULAR PRICES**

In addition to Suits and new Spring Overcoats we have a large range of Burberry's Showerproof and Gaberdine Coats and Linen Dusters in tweeds and rubber effects.

These coats are especially adapted for professional men for street, motoring and driving wear.

They are wind-proof, dust-proof and rain-proof, and of seasonable weights.

Come and see our showing—there is no obligation to buy.

REMEMBER THE ADDRESS—93 YONGE STREET

J.W.T. Fairweather & Company

84-86 Yonge Street

nutritional supply and functioning. The special functions of non-connective tissue cells are directly dependent upon the protoplasmic, intricate, and nutritional functioning of those cells. If a specialized cell is fully nourished and normal nutrition is continued, together with proper elimination, the special function of that cell will be normal. Consequently, the true general cell tonic must be able to perform those intrinsic, nutritive processes which are given to all cells, whether interstitial or specialized. In addition to general cell tonics, we have many agents which increase the special functions of certain organic cells, such as the bitter tonics, iron and various foods; but the increase of special functional tone supplied by these elements is not permanent, and cannot be properly classified as true cell tonics. The newly proliferated cells which have resulted from their stimulating effects do not, in the majority, ever reach maturity. They are, more properly speaking, special cell stimulants, because they do not supply proper nutrition or tend to treat the new, or fixed, cells. The various classes of cells are made to live, and more able to perform their several functions through proper and complete nutrition, and whenever malnutrition or other causes impair the special functions of cells, they do so by producing some intrinsic metabolic defect. There are no drugs which seem to possess the property of supplying full nutrition to the cellular structure. There are many so-called cell tonics, but their field of usefulness is limited. To effectually treat chronic diseases, due to defective cell metabolism, the only tonic to be considered as a curative one is that which goes under the definition of complete nutrition. Agents which increase the special function of certain cells are valuable, but they are in no sense curative, since they are treating the effect and not the cause of the cell disturbance. In all chronic organic diseases, the main function of treatment, the only possible means of permanent benefit, is to restore the normal tone of cells not yet destroyed or texturally changed, and to increase resistance and functional capacity of all intact cells, in order that the organic lesion may be confined, and its effects on involved structure compensated. In this class of cases it has been demonstrated by a large clinical experience that Bovinine ideally fills a much-felt want for a proper food tonic. It supplies not only proper stimulation, but gives to the cellular structure every element in a proper proportion of a full and complete nutrition. It may be classified as a complete food, a direct and indirect cell tonic.

Dominion Medical Monthly

And Ontario Medical Journal

Vol. XXXI. TORONTO, JULY, 1908. No. 1.

Original Articles.

HYGIENE AND SANITATION: DOMESTIC, MUNICIPAL, NATIONAL AND INTERNATIONAL.*

F. Montizambert, I.S.O., M.D.Ed., F.R.C.S.E., D.C.L.

This meeting marks a very distinct advance, and the commencement of a new era, in the history of the Canadian Medical Association.

The adoption last year of our new Constitution—which comes into force to-day—has raised us to the status of a truly national body. It seems, therefore, eminently fitting that our first annual meeting under the new Constitution should be held in the National Capital, and under the Presidency of a medical man holding, as an officer of the Federal Government, what may be called a national position.

But in this connection let me say here that in addressing you tonight I speak not as a Government official, but as an individual member of this Association.

As you know full well, our profoundest feelings are often the most difficult to express. I shall limit myself to saying that, in the presence of this assembly of those who have come from the north, the south, the east and the west of this great country of ours, bringing with them to grace this meeting at the capital of the nation varied and priceless knowledge how to increase the duration and value of human life and elevate humanity to the highest standard of physical, mental and moral perfection—one may well feel many misgivings as to one's ability to meet the full measure of your reasonable requirements.

---

*Canadian Medical Association—President's Address. delivered at Ottawa. June 10th, 1908.

There have been gods and goddesses of disease and of medicine from very ancient days. Back in the far-away times of the first Chaldean Empire, some five thousand years ago. there was a Fever-God, a Plague-God and even a Headache God; and to overcome their evil influences the intervention and good offices were required of el-Merodach the son of Ea, "by whose spells the sick are restored," and of the Goddess Gula, the Queen of Physicians, "whose wisdom alleviates the ills of humanity."

Similar gods with similar attributes may be traced down through the various empires and dynasties, Babylonian Theban, Assyrian, Median, Phoenician and Egyptian, until under the Ptolemies the Hellenic Gods were identified with the Egyptian, after Alexander the Great of Macedon bridged the gulf dividing Occident and Orient. And then we have Apollo, who was, amongst other attributes, God of Medicine under his name of Paean; and the original "paeans of rejoicing" were hymns loudly chanted by the Delphian virgins after Apollo had been sufficiently propitiated to overcome the pestilence. Apollo being possibly too busy about other matters, Aesculapius, his son, is the God of Medicine most usually recognized; and then, in the Homeric days, we first hear of a Goddess of Health, Hygeia, daughter of Aesculapius, and so grand-daughter of Apollo;—Hygeia, the most delightful and pleasing personality of all those that have come down to us from the ancient mythologies. The conjunction of the Goddess of Health with, and descent from, the Gods of Medicine is not without its element of flattery to the medical profession. It is at her shrine that I propose to pay tribute this evening.

A writer on hygiene has divided the history of sanitation into four epochs or eras:

The Hebraic epoch. or era of Domestic Sanitation;
The Roman epoch, or era of Municipal Sanitation;
The Gothic epoch. or era of National Sanitation; and
The epoch or era of International Sanitation.

This is in some ways a convenient division, and I shall make use of it to a certain extent this evening.

The Hebraic Epoch or Era of Domestic Sanitation.

With regard to this epoch, I shall not detain you by going over the familiar ground of the wonderful set of hygienic rules and regulations known as the Levitical Law, or the Laws of Moses. They were most perfectly adapted to the conditions of life of those to whom they were given, and many of them are good for all times and for all environments.

Amid the wreck of the Dark Ages, what had been taught and what little had been handed down regarding the necessities of hygiene to personal health, was buried. Filth, instead of being abhorred, was almost sanctified. The monks imitated the filthy habits of the hermits and saints of early Christian times, and the early Fathers commended them. Even St. Jerome used to praise the filthy habits of hermits. He especially commended an Egyptian hermit who combed his hair on Easter Sunday only and never washed his clothes at all. Monks, up to the time of the Reformation, thought, or professed to think, that by antithesis pollution of the body indicated cleanliness of the soul.

Only within the last century has the resurrection and re-establishment of sanitation upon a firm and more enduring basis been attempted. And this applies not only to personal and domestic hygiene, but to municipal and national sanitation, on which I shall touch later on.

It has been said that the ruling characteristic of this age is the tendency and effort towards perfecting the physical, intellectual and moral welfare of mankind. In these days of struggle and strenuous existence we hear much of the various means for the advancement and protection of the agricultural, the manufacturing, the mercantile and other interests; and of the race for social distinction, and the efforts people make to trace back their family tree as far as possible towards the one in which their original ancestors used to live and to disport themselves. But what question of mere business or social gain can compare, either in advantage or importance, with the general and individual interest which everyone has in the preservation of life and health? No matter what the labour, manual or intellectual, in which one is engaged, nor how productive, each and every mode of obtaining individual supplies and of contributing to the social welfare of the community is, and must ever be, subordinate—both intellectually and generally—to the possession of health.

It is not to be expected that legislators can go much in advance of the views entertained by the mass of the people in the value of preventive and protective measures. "Sanitary instruction is even more important than sanitary legislation," said the late Earl of Derby—himself eminent both as sanitary instructor and as sanitary legislator.

We must, therefore, be patient and untiring in our efforts to educate and encourage the more intelligent and thoughtful to adopt about their homes and in their daily life hygienic precautions. Their example in these matters will gradually extend by imitation and habit to those less favored by fortune. Everyone can do a little, everyone can to a greater or less degree take a lively and practical part in the great crusade against dirt and disease. As has been well said, "If all the individuals in the city appreciated the fact that they are to some extent responsible for the condition of the public health, and, in order to keep their consciences clear, kept their back-yards, cellars, alleys, houses and rooms clean, the reports of the Commissioner of Health would show the result of the multiplied effort."

One of the most difficult parts of the work of improving such sanitary matters has been already greatly strengthened—that is, the getting the people to recognize the fact that dirt is always dangerous—by the gaining as our potent aid in preventing nuisances of the kind of which we are speaking, the public press of the country. At the present day things notoriously injurious to health are detected by the news-gatherer and commented upon in the daily papers. And neglected, dirty or untidy alleys and premises, the precursors of nuisances which in times past would have gone unnoticed, are now pretty certain to be complained of and remedied. These vigilant and influential voluntary inspectors are powerful agents for good, and they are ever on the advance and render any falling behind impossible.

"In the beginning," said a Persian poet, "Allah took a rose, a lily, a dove, a serpent, a little honey, and a handful of clay. The rose had a thorn, the lily was frail, the dove was timid, the serpent was guileful, the honey was very sweet, and the handful of clay was a handful of clay. Yet when Allah looked at the amalgam, lo! it was a woman." And nowhere better than in the hygiene of the home can this complex creature find her sphere for energy and active work. It is to the women of a family that should naturally come the instilling into the minds of the young hygienic ideas that will remain with them through life. "Train up a child in the way he should go, and when he is old he will not depart from it," is true now, as it was in the days of Solomon. To the women belongs the duty of teaching children to breathe through the nostrils, and to eat slowly; of training their daughters and sisters to protect the upper part of the chest; not to squeeze the waist; to have nothing tight below the knee; to wear thick-soled boots, and skirts clear of the ground, so as not to sweep up and carry home the impurities and bacteria of the streets and pavements. Amongst other phases of domestic sanitation may be mentioned the enforcing of proper ventilation of the home; the purity of the milk supply; the boiling of the drinking water and that used for washing vegetables that are eaten raw, where it is doubtful; the use of ice in a jacket outside and around the water jug, butter dish, etc., and not within; and the removal of dust instead of only redistributing it by stirring it up with broom or duster.

Then, again, she can use her influence and authority against late hours at night. There is no doubt that many of the nervous breakdowns which are becoming increasingly common are due in part at least to the modern artificial life turning so much of the night into day since the introduction and perfection of artificial light. There can, I take it, be no doubt that nature intends the hours of darkness for that sleep which restores and prepares. The children's old hymn says:

> " When the darkness deepens,
> Stars begin to peep;
> Birds and beasts and flowers
> Soon will be asleep."

"Birds and beasts and flowers" follow this law of nature, and it would be far better for the health of the nation if men would go to sleep with the other beasts, and women fold up and go to rest with the other flowers.

I hold with the old saying that one hour's sleep before midnight is worth two hours after it. I do not hold with the other old saying, "Six hours' sleep for a man, seven for a woman, and eight for a fool." If that opprobrious epithet is to be employed at all in this connection, it should, in my opinion, be applied to the person who is able to secure eight hours' sleep at night, and yet fails to do so. But those eight hours should be between dusk and dawn, instead of our sitting up late by artificial light and wasting the early daylight hours in sleep.

Then there is to be borne in mind the possibility of the conveyance of consumption and other diseases by kissing. Against the kiss of strong affection and of love, against that most delightful method of putting two and two together, especially when only one pair is feminine, no sanitarian will waste his time in useless words. But one may possibly have a chance to obtain a hearing with regard to other forms that might well be abolished or diminished. It would surely be an advance from the sanitary standpoint, and one not too hopelessly unreasonable, if the masculine handshake or some similar greeting could be substituted for the formal conventional touching of feminine lips to lips which is so general amongst women on meeting and on separating.

Again, the general and indiscriminate kissing of babies and young children by every friend and visitor might surely be omitted. This would not involve an overwhelming amount of self-denial, for the infant at any rate, and it would protect it from a risk to which we have no right whatever to expose it without its understanding and consent.

I speak of the home aspect of sanitation as being especially women's work, because it is in the home that she finds her fitting and proper sphere. The new woman now-a-days is forcing herself forward as a competitor with man in almost every line of life. Nature herself tells us in several ways that this should not be so. Take as one evidence of this the distribution of hair upon the face. The man is supplied with a moustache to act as a dust-filter and protection for the nostrils (and it should, therefore, be all brushed upwards) and a beard to protect the throat and chest. It is he, therefore, that is evidently intended to go out and face the elements and the dust and other dangers of most kinds of work. And the absence of this hirsute addition to the face of the woman must surely be nature's indication that she is intended for the shelter and protection of the home. But though that is her rightful realm, and she is the angel of the home, the source of all its beauty and grace, and sweetness and comfort and joy, it by no means follows that she is to sit there with folded hands in smiling and idle acceptation of our homage and adoration. Looking again at the faces, we see that both sexes have been given eyebrows. Now, the physiological use of the eyebrow is, of course, to prevent drops of moisture upon the forehead running down into the eye. As women have eyebrows, it is evident that, besides the beauty of those eyebrows being a fit subject for the rhapsodies of the lover and the sonnets of the poet, they are given for their physiological purpose also, and that women should carry out all the active and energetic labors symbolized by the expression, "the wielding of the broom." (Not the wooden end upon her male relatives, except under very exceptional circumstances, but the bushy end.) And certainly in no better way can they labour for themselves and for others than in sanitary work in the home.

In this everyone can do a little—if only to make one home or one room more bright, more cleanly, more wholesome. Sunlight, pure air and cleanliness are the natural enemies of disease germs. There is no sounder philosophy than is contained in the old sayings: "There is more health in a sunbeam than in drugs, more life in pure air than in the physician's skill," and that "sunlight may fade your carpets, but better that than have disease fade your cheeks."

In the temples of Hygeia the statue of Apollo sometimes is found standing with that of the Goddess of Health for worship. This is possibly because he was originally a God of Medicine. I like to think, however, that there may be another explanation, and that is that he is present in his character of Helius, the Sun-God; and that this placing of the Sun-God in the temple of the Goddess of Health shows an appreciation even at that day of the health-giving effects of sunshine.

The Roman Epoch or Era of Municipal Sanitation.

This epoch or era is so named because the great city of Rome set perhaps the most remarkable example of this phase of preventive medicine; a city which worshipped as a divinity the sweet, smiling Goddess of Health; a city in whose municipal administration the highest place was accorded to the sanitary corps; a city which supplied pure drinking water of crystalline purity from the distant mountain lakes and streams by its seven or eight great aqueducts, of which four still remain; aqueducts dating back to centuries before the Christian era; aqueducts considered so important that under Nerva and Trajan no less than seven hundred and twenty "curatores aquarum," engineers, architects and others were continuously employed at the public expense to look after the water supply of the city; a city with public baths capable of accommodating all the citizens, for there were some eight hundred bath-houses throughout the city, the Thermae of Caracalla, Diocletian, Nero, Titus, Agrippa, and countless others; a city with a system of sewers dating back to Tarquinius Priscus and Tarquinius Superbus, six hundred years B.C.; the Cloaca Maxima, the main drain, built in triple arches of Etruscan architecture, and so large that barges could float upon it all under the city; and so well constructed that no earthquake or other force has altered it. Though choked up nearly to its top by the artificial elevation of the surface of modern Rome, it is curious to see it still serving as the common sewer of the city after the lapse of nearly three thousand years. Under the Empire condemned criminals repaired the sewers. To what better work could our modern jail-birds be put than that of similarly working for the sanitary well-being of their communities?

A proper drainage system is the first great duty of municipal sanitation. It must precede the waterworks, and be in readiness to carry off the water. To reverse this order has been well stigmatized as preposterous in its original signification of "pre" first and "posterus" coming last, or putting the cart before the horse. And the very worst use that can be made of drainage is to pollute some river or stream with it; it is a waste of valuable fertilizers and a wrong to other communities down-stream. Cities and towns must ere long come to the purification of their sewage by septic tanks, chemical precipitation tanks, or filter beds, and the using up of the effluent in sub-soil irrigation.

A good water supply is the next most pressing duty of municipal sanitation. As a model from the past in this respect, I have spoken of Rome. Jerusalem also before the days of Solomon had aqueducts bringing water from miles distant, and through a reservoir which served as a sedimentation tank. We have another notable example in Tenochtitlan, the ancient Toltec capital, now the City of Mexico, with its admirable waterworks dating back long before the first meeting of Cortez and Montezuma, the Aztec chief. The difficulty of finding a pure water supply in sufficient quantity is facing every city. With the increase of population it is hardly possible to find a near-by watershed which is not more or less contaminated by the wastes of human life. Cities have too often either to adopt or continue a suspicious supply, or to trust to methods of filtration for the removal of the disease-producing elements. The remedy in some cases is fortunately to be found, as by Rome and Mexico, in bringing water from the distant mountains where it is pure and undefiled. Such a supply could be obtained for this city* from the Laurentian lakes to the north of us. This, or the purification of the water supply through filter beds, is a necessity that must soon be faced by this as by every other city.

Amongst the many further duties of municipal sanitation, I need only mention the inspection of milk, food, fruit, lodging houses, schools, public stables, abattoirs, etc.; the prevention of the exposure of meat and bread to dust, flies and unnecessary handling; the removal of garbage and dead animals; the prevention or, at least, the limitation of the soft coal smoke nuisance, and the inspection of plumbing. I have mentioned this last because I want to say a word about it. The health of the home and the household is more at the mercy of, and depends more upon, the work of the plumber than the doctor. There may be differences of opinion as to whether or no sewer gas carries the actual micro-organisms of disease, but all, I take it, will agree that the breathing of it in the home and the bedroom is calculated to so lower the resisting power of the body as to make it the more exposed to become the victim of contact infection. In the large cities there are inspectors of plumbing. There should be such officers in every municipality where there is a drainage system. Soil pipes should pass along the basement ceiling and pass underground only outside the wall, and never be laid under the house. And every joint and fixture should be made and connected by a skilled workman, and not by an apprentice. In the book of the Proverbs of Solomon, the Son of David, King of Israel, we read that there were three things that were too wonderful for Agur, the son of Jakeh, yea, four things which he understood not: "The way of an eagle in the air, the way of a serpent upon a rock, the way of a ship in the midst of the sea, and the way of a man with a maid." It has been said that had that wise man lived in our day he would have been tempted to add a fifth cause of wonderment: "The way of a plumber with the drainage of a house." There are, doubtless, reliable, well-informed men amongst them, but the public should have greater protection. In my opinion, plumbers should only be admitted to practice under a license in sanitary work and drainage, given only after examination. Some similar system to that very rightly required for physicians for the security and protection of the people. And the public should be educated and encouraged to choose for employment as plumbers and as inspectors men holding diplomas and certificates, such, for instance, as those of the Royal Sanitary Institute, now procurable in this country.

---

*Ottawa.

Another duty in municipal sanitation is the enforcement of the notification to the City Health Office of all cases of infectious disease including tuberculosis, and the keeping of a house register in which the medical and sanitary history of each house should be written, the name and number of the cases of infectious diseases, with their dates, and the means taken to improve the drainage and sanitary condition of the house. Such a register is kept in many cities; it should be so in all. Reference to it would be of inestimable value to those looking at a house with the view of purchasing or hiring it. It would also be a potent lever to move holders of house properties to keep them in proper sanitary condition.

Still another municipal duty is that of the suppression or extirpation of the rat. Rats are always a nuisance of the first order, and as carriers of disease a source of public danger. From the standpoint of health they possess no redeeming qualities, and the more quickly a great diminution in their numbers is affected the better it will be for everybody. The Rat Act of Denmark is one of the most remarkable laws in the history of legislation. It is the result of the grim fight carried on for ten long years by one man, Zuschlag, a civil engineer of Copenhagen, against the most merciless ridicule poured out by the Danish press, the galling contempt of scientists, and the lethargy of the people; but in the end he finds himself acclaimed as a benefactor of his country. He is now President of the powerful and influential "Association Internationale pour la destruction rationelle des Rats,'' which has a membership of two thousand men of standing and known influence. In several countries government or port authorities have adopted Zuschlag's premium system of a national campaign on this principle. In England a society has recently been formed for the destruction of rats with the support of such men as Sir Patrick Manson, Sir James Crichton Browne, Sir T. Lauder Brunton, Lord Avebury and Professor Simpson. It has been calculated that there are as many rats in a country as there are men, women and children, and that each rat destroys one farthing's worth of food, grain or material per day. At that rate the six million rats of Canada cost us the enormous sum of over thirty thousand dollars per day.

But, in addition to this is the other terrible indictment as the conveyors and disseminators of disease germs. That enteric fever is spread by them is well established. And the important, indeed the all-important, part they play in the introduction and extension of bubonic plague is well summed up in the recent report of the Plague Committee appointed by the Secretary of State for India in the statement to the effect that unless the destruction of rats is carried out with the utmost energy it will be vain to hope to get the plague under control.

The last number of the *British Medical Journal* has an article on ''The Cat as a Preventor of Plague.'' In villages in India where cats are numerous rats are scarce and plague unknown. In adjacent villages where cats are scarce rats are numerous and plague prevails. The cultivation of the cat has an advantage over some other plague preventives in that it does not conflict with any caste prejudices.

As Dr. Murphy has pointed out, the connection between rats and the plague has been apparently known since very early times. We read in the Bible that when the Philistines, after they had taken the Ark of God, were stricken with what was probably the bubonic plague, they evidently recognized, as we do to-day that the disease was carried from one section of the country to another by rats, for they endeavoured to propitiate Jehovah by offering five golden images of the most noticeable result of the disease, and five golden images of the family of Mus, probably Mus rattus or Mus decumanus—now known as the rat—images of the probable disseminators of the disease.

The Gothic Epoch or Era of National Sanitation.

This epoch has been given its name because Theodoric the Great, Theodoric the Ostrogoth, was the first in recent history to take a wide or national view in such matters. The torrent of vital energy poured into the West by the Goths, with the collapse of the old inanimate routine of government and the old inanimate social system, the foundation of a new kind of government, and the rise of a new social fabric instinct and permeated through and through with the energy of the invading races, found one of its manifestations in the establishment of national sanitation.

After the Conquest, with all Italy laid at his feet, Theodoric held court in the city of Ravenna by the Adriatic, and there placed the protection of the public health entirely under the control of the central government, and recognized the great truth later enunciated by one of England's Prime Ministers: "The health of the people is the first duty of the statesman."

In former ages the three great enemies of national welfare, happiness and progress were deemed to be war, famine and pestilence. Until less than a century ago all these were regarded as beyond the realm and reach of human science, and were accepted as the infliction of the gods, or as the mysterious scourges of Providence, whereby nations were chastened for their sins.

From war and the fear of war we in this country are most fortunately and happily free.

As for famine, the genius of man has so wrought upon steam, upon electricity and other forces of nature that not only have the products of the earth been vastly increased, but by means of rapid intercommunication all nations have been brought into close relations, one easily supplying what another lacks. Thus national famines have disappeared, or are disappearing, from the world, together with the ignorance that tolerated them.

So for pestilence. We claim, too, that disease and pestilence are not the rightful masters of man, and only tyrannize over him by reason of his ignorance or supineness. They are merely the humble subjects of nature, and come and go in obedience to her laws.

Accepting the estimate made by statisticians of the financial value of the life of each able-bodied, industrious man at sixteen hundred dollars, and the average cash value of each man, woman and adolescent above twelve years of age at one thousand dollars, we have then some slight conception of the financial value of the life of each citizen, and the loss to the wealth of the country from sickness and death from preventable diseases which destroy thousands of lives annually, the cash value of which amounts to millions. The eight thousand who die annually in Canada from tuberculosis alone represent a financial loss of at least eight million dollars. Even from this low monetary point of view, therefore, it needs no laboured argument to prove that it should be the first duty of all governments, national and provincial, to protect the public health by enactments based upon the knowledge that sanitary science has evolved, and to see that all the members of society are benefited by them.

Nations and communities have it in their power to diminish the causes which produce sickness and premature death. From even the partial wise use of this power during the years that are recently past, the average duration of human life is slowly but progressively on the increase. But much, very much, remains to be done. And every measure which relates to the improvement of the sanitary condition of the people generally deserves the earnest support of statesmen, and the favor and hearty support of all.

Provision has been made by the National Government to protect this country at large against the exotic diseases—the diseases to be detected by quarantine and by inspection—threatening from abroad.

The country has been and is so fairly protected from their inroads that everyone takes their absence as a matter of course without stopping to think of the work constantly going on at the outposts of coast and frontier. But it is the diseases we have always with us, the well-known preventable diseases, that produce the greatest destruction of human life, and swell the total of the general suffering and distress in all parts of the country.

Some of these, such as enteric fever, scarlet fever, measles and diphtheria, are left in this country to Provincial responsibility. But there are some other diseases and some other points as to which it seems to me the national power can best be exercised.

Tuberculosis, for instance. This is a disease widespread throughout the whole Dominion, and it cannot be kept within municipal or provincial bounds, if only because the Eastern sufferer is so apt to seek a health resort in the West. The annual death rate from tuberculosis is so high and the financial loss to the country from these deaths and from the illnesses which precede them is so grave a national matter that it seems to me it should not be left to the separate actions of the various Provinces, but should be at least co-ordinated and arranged by the National Government. Sanatoria are good in their way, and would be better if they could be kept for the reception of incipient cases, to be discharged cured to make room for others. The beginning cases, however, are not those that appeal most loudly to the sympathy of the onlooker. And too often, under pressure political, personal, religious and charitable, the few beds of the sanatorium are promptly filled with incurable cases, and so their highest mission fails. The same amount of money spent in dispensaries, day camps, and the dissemination of pamphlets, leaflets and other literature on the prevention of the disease, would reach and benefit hundreds for each one the sanatorium can aid. The enforcement of notification of tuberculosis also, with the appointment of inspectors to follow up each case where the visiting physician cannot or does not do so, seems to me essentially a national work and responsibility.

The prevention of smallpox also should be distinctly a matter of national sanitation. We are not only threatened with it from the Orient, from Europe, from the United States, and from South America, but from England also, owing to her retrograde legislation nullifying compulsory vaccination by the admission of conscientious objections, and yet not putting smallpox on the list of her quarantinable diseases.

Compulsory vaccination in infancy and compulsory re-vaccination in adolescence should be the national law. By such laws smallpox has been made to practically disappear from Germany. This disease is unknown in her army. In the entire German Empire during the whole of 1906 there were but twenty-six cases of smallpox and five deaths, and these cases were largely imported from neighboring countries. Why cannot we learn from such an object lesson as that, confirming, as it does, the experience of every smallpox hospital, where vaccination keeps the attendants free from the disease?

I would go further still. For the victims of unpreventable infectious diseases I have both sympathy and pity. Smallpox, however, is entirely preventable. For its victims, or for those who are responsible for them, I have nothing but condemnation. Not only would I make vaccination and re-vaccination compulsory, but I would make having smallpox a penal offence. In no other way that is avoidable is one permitted to be or to harbour what is a nuisance and an injury to one's neighbours. An outbreak of smallpox often paralyzes the travel and traffic of a small community. It always injures even the larger ones. It is a distinctly preventable disease. No one has any right to harbor an unvaccinated person on his premises any more than he has to store a supply of dynamite. No one has any right to have it, and every offender in this particular, every adult who has smallpox and the parent or guardian of every minor who has it, should, in my judgment, be sent, as soon as the risk of infection is over, to pick oakum for a term in the common jail for having been guilty of a wanton and quite avoidable nuisance and misdemeanour; or, still better, to work for a similar period at forced labour in the sanitary improvement of the municipality, as I have suggested for our prisoners before.

Railroad and car sanitation should also come under National Sanitation. Under this heading may be briefly mentioned the prevention of the possible spread of typhoid dejecta along the roadbed, to directly infect or to be blown as dust into neighboring sources of water supply; the use of non-absorbent coverings and curtains; the general use in sleeping cars of the thin, so-called emergency curtains which permit the free passage of air, but not of light; the placing of ice in a jacket around the drinking water, and not in it; the provision of a separate basin, over which alone toothbrushes may be used; the proper ventilation of, and preservation of temperature in, the cars, and their frequent and efficient disinfection; and the abolition of the brushing down of passengers by porters in the midst of the car, whereby the dust from each in turns is distributed over the persons and into the lungs of his neighbours. And this in order that a rapacious porter may be the more sure of the holdup for his tip. The brushing, when required, should be done only in a corridor beyond a swing door.

If temperance be a thing to be secured by legislation, that legislation may well be national. Nothing certainly injures health more than the diseases of the various organs that are affected by improper food and the abuse of spirituous liquor. With regard to improper food, as far as quality is concerned, national sanitation has already taken hold of matters connected with the adulteration of food and drugs, and the inspection of meat for export, although not yet that of meat for our own home use.

With regard to the liquor traffic: Of all temperance legislation, the most temperate and, therefore—to my mind—the most likely to gain the desired end is that known as the Gothenburg system. The elimination of private profit upon the sale of spirits, and the commission upon the sale of non-intoxicants, are, of course, the essential points of this most excellent system, with the introduction and extension of which in England the name of His Excellency our Governor-General is so closely connected.

I cannot pass from the subject of national sanitation without referring—still in my individual capacity, not in my official one—to the resolutions that have been passed annually since 1902 by this Association, urging upon the National Government the collecting together of national matters medical and sanitary—now scattered amongst the various departments—into a Department of Public Health under one of the existing Ministers. In connection with such a department there should, in my judgment, be a national bacteriological laboratory, with branches for the supply of vaccine and of the various sera and antitoxins. These should be prepared and tested by men on salary and without any personal interest in their sale. And they should be issued bearing the Government stamp as a guarantee of purity and reliability, and marked with a date limit of efficiency. The general practitioner throughout the country would then know just what he is using, and both he and his patient would be much better protected than they are at present. Moreover, in such a national laboratory there might well be bacteriologists and chemists engaged in original research. This country should rise above the position of hanging on to the skirts of other nations and waiting to hear from them. It is fully time that in such a national laboratory Canada also should have her investigators taking their part in forwarding the advances of science. In such a National Department of Public Health there would be no interference with Provincial rights, only a domestic rearrangement for greater efficiency. On the contrary, one of my dreams is the creation of a national board or council of public health, composed of the occupier of the federal office I now hold and of a representative from each of the Provincial Boards of Health, to meet at the Capital from time to time to advise the National Government in public health questions affecting the country at large. Advice and recommendations from a council so composed should carry more weight with the Dominion Government, and with the people, than those of any one sanitary advisor, be he ever so able and ever so experienced.

Departments of Public Health already exist in some countries. They are being actively striven for in Great Britain, in the United States, in Mexico and in Cuba. That we will ultimately have one in Canada I in no wise doubt.

The Epoch or Era of International Sanitation.

Within the last generation the idea has been spreading that those nations that are most active in sanitary and hygienic movements are really dependent on each other for complete success. This idea has found expression in international official conferences such as those of Venice, and London, and Paris; in the international congresses of hygiene and demography; in such international conventions as those of the Republic of North and South America; of those on tuberculosis; in such international societies as the American Public Health Association, which embraces the United States, Canada, Mexico and Cuba, and in the general international exchange of health news and bulletins.

International agreement, as a recent writer has pointed out, or even a declaration of policy to ameliorate the local conditions that cause disease, so that no people should be allowed to live without sufficiency of pure air and light, pure water and pure food, good drainage and sewerage; in other words, except under the healthful environments of man which are his inalienable right—such an agreement would furnish objective employment of national thought and energy, and by the substitution of one energy by another detract by so much from the consideration of armament and war. It has been suggested that in the search by peace congresses for measures to be recommended to The Hague Tribunal for consideration as measures towards universal disarmament, or partial disarmament, or arbitration, or peace, such international sanitation as I have alluded to above might be included as tending directly and indirectly towards the full or partial abolition of war.

It is devoutly to be hoped that in the process of evolution of international sanitation the time may be not far distant when it may be possible that there shall be Canadian medical officers responsible to the Dominion Government in every port of emigrant departure for this country in Europe and in the Orient. The action of such a body of men in vaccination, disinfection and careful inspection before departure would lighten the work of quarantine and immigration officials on this side. And, what is far more important, it would remove to a great extent the chances of outbreak of disease during the voyage, thus lessening the risk of infection for all classes of persons upon the vessel. It would benefit the shipping interests greatly both in time and in money. Moreover, it would obviate the hardships which must necessarily accrue in many cases from the sending back of undesirable immigrants from the port of arrival in this country.

In conclusion, I would say that I cannot hope that I have told you anything new this evening. The truths of sanitation are well established and well known. We cannot plead now as in the days of Hosea the Prophet when it was written: "The people are destroyed for lack of knowledge." But these truths—like others—require iteration and re-iteration, line upon line, line upon line, precept upon precept, precept upon precept, here a little and there a little.

The best I can hope for is that I may have in some small degree presented to you some old thoughts in new settings. And I may, indeed, be well content if anything that I have said tends to make these truths—ever old and ever new—sink more deeply into your minds and memories, and if, by so doing, I may have advanced even by the smallest step our progress towards that time when the four sanitary epochs or eras of which I have spoken—the Domestic, the Municipal, the National, and the International—may be followed by a fifth, towards which we are all striving and yearning, the epoch or era of Universal Sanitation.

PRESIDENT'S ADDRESS.*

By Ingersoll Olmsted, M.D., Hamilton.

Gentlemen.—Permit me first to thank you for placing me in the honorable position of President of the Ontario Medical Association. In electing a member of the profession of this city to fill this most important office, I feel that you wished to do honor to Hamilton and to the profession here, rather than to the individual. On two previous occasions Hamilton has been honored by the election of one of its citizens to the Presidency of this Association. In 1883 the late Dr. J. D. Macdonald was chosen, and again in 1888 the late Dr. J. W. Rosebrugh received the honor. The first and only meeting of this Association in this city was held in the old City Hall, on James Street North, where the present City Hall stands, in the year 1884, just twenty-four years ago.

After an absence of twenty-four years, it is my pleasant duty to extend to you a hearty welcome. We feel that the prodigal has returned, and an intellectual feast has been prepared for you. We trust that the reception given you this year will induce you to return to us in the near future.

Hamilton has well deserved the name of the Ambitious City. It may not be generally known, but nevertheless a fact, that this was the first city in America where antiseptic surgery was practised. Dr. A. E. Malloch, a Canadian, who is with us this afternoon, was a house surgeon of Lord Lister. He returned to Canada and introduced Listerism in Hamilton in 1868.

In his early operations the spray was used, but realizing that it was unnecessary, he abandoned its use years before it was discarded in England. The results he obtained, and the work he did were as fine as anything I have ever seen.

Also this is the first city in the province where compulsory notification of tuberculous patients to the Medical Health Officer was established. It was owing to the energies of Dr. W. F. Langrill, the present Medical Superintendent of the City Hospital, that this important by-law was passed in 1902. At that time Dr. Langrill was the Medical Health Officer, and he was ably supported by the Hon. Lieut.-Col. John S. Hendrie, who was Mayor of the city.

---

*Delivered at the Ontario Medical Association.

There have been many improvements in this city during the past twenty-four years. Whereas formerly there was only one hospital, with accommodation for 100 patients, we now have two first-class hospitals, the city, with 250 beds, and St. Joseph's, with 50 beds. Both of these institutions are splendidly equipped with modern appliances, and over 3,000 patients are treated annually in the wards, and about the same number are treated as out-patients. The surgical work has increased by leaps and bounds, and the results have been excellent.

Two years ago a Sanatorium was established on the mountain, for the treatment of incipient cases of tuberculosis. It has accommodation for 35 patients. The results obtained there have been very encouraging.

Another very important institution is being erected, thanks to the generosity of one of our citizens, Mr. William Southam, namely, a hospital for advanced cases of tuberculosis. We will henceforth be in a position, we hope, to successfully cope with the ravages of this terrible disease. It is thus a great pleasure for us all to have the members of the Association meet here.

Now, in regard to the Association itself. We felt that owing to the tendency of its members to devote themselves to special branches, new sections should be formed. The various subjects could not be fully discussed in the two sections, Medical and Surgical, consequently three additional sections have been formed, namely, Preventive Medicine, Eye, Ear, Nose and Throat; Obstetrics and Diseases of Children. Two additional sections could easily be added, namely, Mental Diseases and Diseases of the Nervous System and Pathology. I firmly believe that if this plan were followed, and the different sections were placed in the hands of enthusiastic men, our annual meetings would be very much better attended.

With 2,500 practitioners in this province, we should have more than 10 per cent. of them at our meetings. Some parts of our Ontario are seldom represented on our programmes. This should not be allowed. During the year hundreds of interesting cases are seen by the different physicians, which are never published.

The rule to take careful notes of cases should be more generally adopted. It would then be a very easy matter to get up a short paper which would lead to good discussion with marked benefit to all present.

During the past two years several county medical societies have been formed, and if the officers of these societies were to interest themselves in getting their members to write papers and present them to the Ontario Medical Association, the duties of the officers of this society would be lightened very much.

We want every physician, whether practising in village, town or city, to come to our meetings, and give us the benefit of his experience.

Many of the papers on the programme this year are by Canadians practising in different parts of the United States. Thus, there are two from New York, two from Johns Hopkins Hospital, Baltimore, and two from Detroit. Montreal has sent some of her best physicians and surgeons to assist us at this meeting, and last, but not least, our brethren across the line, who unfortunately are not Canadians, have graciously laid aside their work and come to us with the best fruits of their labors.

For the preparation of this programme, gentlemen, we are chiefly indebted to the untiring energy and faithful work of the chairman of the Committee on Papers, my friend, Dr. Wallace.

As there are a large number of excellent papers to be read this afternoon, I shall not take up any more of your time, but will proceed with the programme.

MR. DOOLEY (M.D.) ON MATTERS MEDICAL.*

I see be th' pa-apers that th' sessions iv this prehistoric s'ciety has been a gr-reat success. All iv th' pa-apers on th' programme was r-read amid breathless silence an' enthus'sm, fr'm "Clinical Symptims iv an Overdose iv Jawn Collins," to "Ann S. Thesia in her relations to or with certain Mimbers iv Parlymint," an' no language bein' used more riprihinsible than th' scientific wurruds emplied be th' gifted authors thimselves.

Now, although I'm a medical man mesilf—I'm an M.D., like all iv yez, which sthands, I'm told, f'r Modherate Dhrinker—I was unable to be prisint at th' intellechool indoor festivities iv th' meetin'; bein' more arjoosly emplied in showin' an academic bunch iv our distinguished visitors th' lions an' sights iv our sanitary an' hygienic city, th' principal iv which was th' sthreet car lines an' some iv th' numerous tuberculosis hospital sites an' as a last port iv call, we inspected that sanitary hot box iv oratory th' House iv Commons, where, in th' commercial inthrests iv th' medical min an' th' undertakers iv Canada, th' Mimbers sit heroically raisin' th' temperachoor an' lowerin' their vitality fr'm elivin a.m. to five a.m.

---

*An original monologue, written and recited (in character costume) by Mr. Gordon Rogers, Ottawa, at the smoking concert of the Annual Meeting of the Canadian Medical Association in the Russell House, Ottawa, on June 11th, 1908.

"Why dont ye pay th' Civil Sarvints their money?" thunders me ould frind, Dock Sprowle, punchin' a lar-rge hole in th' heated atmosphere with a copy iv Hansard, an' bitin' a large piece out iv an orange in his left hand. "They can't pay their docthors' bills," he says, weepin', "an' they're near crazy about it. I'm a midical man mesilf," he says, "or was, onct; an' I sthand here as th' champeen iv th' medical patient an' th' patient medical man," he says. "Hear! hear!" says Dock Borden, Dock Daniel, Dock McLennan an' Dock Black, an' siveral more iv th' ould guard that laid down th' prescription pad whin their counthry called' an' give up their practice f'r th' more payin' proposition iv politics. Dock Sprowle, to hide his emotion, turns a page or two over be th' seat iv their pants. "If me ould frind Dock Tupper was here, here," he says, bitin' har-rd at th' orange, "he'd make more noise than all iv yez! He'd show ye there was no lung throuble in his family!"

Now, there was a few things I wanted to say a wurrud or two about, an' I will not detain th' House, as th' Mimbers say, after which they go on to put ivrybody t' sleep.—that is, ivrybody that's awake. There's Christyan Science. Ye'er all medical min. What is it? I've been r-readin' a book on th' Life an' Har-rd Times iv Mary Baker Eddy, th' Eddystone Lighthouse an' Burnin' Beacon iv Modern Thought, an' th' gran'ma iv them all. She was th' daughter iv Hygeia, be Mercury, th' god iv merchants an' iv thieves, an' be Croesus an' Pandarus, an maybe siveral more iv them classical immorals, an' so gran'daughter iv Sanitaris an' Apollinaris, as me noble frind th' Prisidint would say.

Now, it tells in this book that there was two stoodents iv ould McGill that issued th' challenge t' two iv Mary's pets to a test iv their respective methods iv curin' disease. Says th' b'ys fr'm ould McGill to th' Christyan Science la-ads: Afther tis proved, they says, that th' four iv us is all ekally sound in wind an' limb, we'll all be inoculated, they says, with some deadly mickrobe. The deadlier th' betther, they says, f'r 'twill be two Christyan Scientists less. I forget just which particular brand iv mickrobe it was, but twas wan iv th' best and most ixpinsive. We ar're willin', they says, to be vaccinated with th' pure tested culchoor iv th' bacillus vermicilli or th' bacillus macaroni or th' bacillus magilli, providin' anny two iv yez out iv th' Eddy Tabernacle does th' same. We ar're to depind, they says, on medical threatmint, an' ye ar're to depind on Christyan Science threatmint f'r relief or sudden death. Well, sir, what does th' two young disciples iv Mary do? They tillygraphed t' Mary, an' she wires back, at their expinse, an' this is what they says to th' McGill heroes: We ar-re perfectly willin', they says, to accept all iv the conditions iv our medical frinds except th' thriflin' wan at th' last. The' referee is all r-right, an' th' size iv th' ring an' iv th' side bet f'r th' death sthruggle an' th' funeral expinses iv our antagonists is all r-right, but we cannot take advantage iv ye, they says. We ar-re to receive midical threatmint, they says, an' ye ar-re to receive Christyan Science threatmint. And there ye ar-re. Tis a good spoortin' offer, but th' McGill la-ads crawls back to th' laboratory, an' th' fight is off.

Tis wan on Christyan Science, says you. But hold on. Take medical science. There's th' Sthrange Case iv Mabel Quirk, a la-ady that underwint an operation f'r laparotomy in America. I don't know in what part iv America laparotomy is, or if it was th' lap iv Senator Platt that Mabel was sittin' in; but annyway, this poor lady, in addition to bein' laparotomous, was near sighted. She kep' her glasses on to see if th' thrained nurse winked at th' docthor, an' she forgot to take thim off iv her nose in th' excitemint iv bein' chloroformed an' holdin' th' docthor's hand. An' whin she come to, her glasses was gone. Th' thrained nurse didn't have thim, an' th' docthor said he niver took even wan of annything himself. Well, sthrange as it may see to all iv yez, afther th' operation Mabel's health was not improved. Th' laparotomy mickrobe got a lap ahead of Mabel again. She got a new pair iv glasses an' was able to see her way to go to Germany, f'r operation number two. An' there 'twas th' same as before. She kep' her glasses on, an' when she came back into this wurruld iv sin an' sorrow an' operations, they was gone like th' last pair. Well, Mabel was cut up. I don't know what she said to th' thrained nurse an' th' docthor, but what they said to her in German, which she didn't understhand, wouldn't look well in German text, to a German, th' pa-aper says.

Thin Mabel come back t' New York. Twas rough on th' v'yage.

Th' ship rowlled a good deal, an' 'twas noticed be th' head steward that whin Mabel wint into action on th' bridge deck she jingled a good deal like a pitcher iv ice wather in th' hands iv a har-rd dhrinker at four a.m. She noticed it herself, thinkin' 'twas th' tur-rbine engines; but whin she got t' land she stharted f'r th' R'yal Victoryah Hospital, havin' no more faith in th' integrity iv th' officials iv American an' German instithutions. Nivertheliss, she give her third pair iv glasses to th' Mathron to lock up in th' safe till afther th' operation. She was chloroformed; an' whin she opened her eyes—glory be! there was her two pair iv lost glasses starin' her in th' face. They was inside iv her all iv th' time! So all's well that inds well. Mabel Quirk has got all iv her glasses back, an' afther three operations she can see betther than she iver did before.

Now, at th' urgent request iv th' worthy sec'tary, I wrote a pa-aper entitled, "Th' Utility iv th' Sigmoid Flexure f'r Hangin' Purposes f'r th' Japanese in th' Evint iv Hari Kari not Doin' th' Job." 'Tis a toss up which is th' longest, th' Title 'r th' Sigmoid Flexure. 'Tis very exhaustive an' weighs four pounds. Th' pa-aper, I mean. You will all be disappointed t' know that I'm not goin' t' r-read it. But before I come down off iv me perch, I want t' make a few remarks on the Possibilities iv Profit in th' Establishmint iv Soda Fountains in th' Waitin' Rooms iv Medical Min. It might be wan way iv gettin' th' patient to pay up besides th' Collector at Tin Per Cint. An' while I'm there, I'll l'ave it to all iv yez, if there's anny wan kind iv account that gets pushed hardher behind th' clock than th' docthor's bill, an' if there is anny man that gets called in quicker whin there's a panic an' throuble in th' house, than th' docthor, I'd like to know what an' who they are.

"Jawn," says th' wife, "there's th' bill f'r me new hat has come in . I must pay it, f'r I want t' keep me credit good with Madame Aigret, f'r she's th' best. An' there's th' bill f'r Mary's music lessons; an' her profissor says me must have a new pianny. I'll need a hundhred dollars," she says. An' Jawn writes out th' cheque with th' easy grace if Jawn D. Rockefeller. "An—O, yes!" says th' wife. "There's wan other I forgot. 'Tis Docthor Casey's bill. 'Tis tin dollars, f'r savin' th' baby's life a year ago." "Forgit it—again!" says Jawn blottin' th' cheque. "Put it on ice. Th' baby's all r-right now."

Glory be! As me ould frind, Dock Kipling would say if he was here:

T' hell with Docthor Casey's bill!
I'll pay it bye and bye.
But it's: Please to come in quick, Dock!
Whin ye think ye'er goin' t' die.

Now, about this Soda Fountain scheme. Ye have a good lookin' thrained nurse, to attind to th' fountain. She's th' Soda Fountainess. Or durin' an epidemic or compulsory vaccination ye might have two, a thoroughbred peroxide blonde an' a black draught brunette. That's f'r th' male patients, ye undhersthand. F'r th' ladies I would recommind a tall, dark, good-lookin' athletic young man from wan iv the American base ball univarsities, well thrained in th' matther iv high balls. Th' ladies prefer th' male clerk an' a little somethin'; an' th' tall, dark, good lookin' young man could take a good deal iv throuble off iv th' docthor's hands, if desired. Now, here is me idea iv an appropriate an' inexpinsive menu—inexpinsive to th' medical man, I mean:

DR. JIM FIZZ SODA FOUNTAIN

Fizzing at all hours, Day or Night.

Practice and Prescription Positively a Secondary Consideration.

All Drinks Spot Cash. No Checks Given or Taken.

Try Our:

Buster Brown Bioplasm	10 cents
Post Mortem Egg Phosphate	15 cents
Hypodermic High Ball	25 cents
Pineapple Perineum	10 cents
Meningitis Fruit Salad	20 cents
Vermiform Cream Puff (special)	10 cents or two for 25c
Ergot of Rye High Ball	15 cents

Sunday Specials: (all Sunday School Drinks 25 cents)
Spirochaete Pallida Fizz
Sunny Jim Bacillus
Housemaid's Knee Bouquette
David Harum Appendix
Strawberry Streptococcus
Chloride of Potash Frappe
Wood Alcohol Nut Salad

An' there ye ar-re. If there's annything in it, don't let y'r profissional etiquette sthand in th' way iv gettin' rich quick. Th' Modherate Dhrinkers Soda Fountain Company, Limited, sounds all right. As f'r mesilf, if anny wan iv th' Boord iv Directors surreptitiously removes th' ould style soda fountain from me medicine cabinet (Mr. Dooley removes a flask from his hip pocket) to make room f'r a few hundred shares in th' New, I'll say nothin'. An', glory be! who knows? With th' patients payin' cash at th' Soda Fountain, maybe there'll be th' miracle iv a practicin' medical man livin' an' dyin' a millionaire.

Gordon Rogers.

THOROUGHNESS IN ABDOMINAL SURGERY.

By A. Lapthorn Smith, B.A., M.D., M.R.C.S., England.

Surgeon-in-Chief of the Samaritan Hospital for Women; Gynecologist to the Western General Hospital and to the Montreal Dispensary, and Consulting Gynecologist to the Women's Hospital, Montreal; Fellow of the American, British and Italian Gynecological Societies.

Several years ago, when I had had an experience of about five hundred abdominal sections, I published a paper entitled "Conservative Gyneecology," in which I pointed out that the term was often wrongly used. While the only thing to be conserved was the patient's health, the keeping in of diseased organs or of organs which experience told us were on the straight road to disease, led to the very opposite result. Now, with an experience of nearly a thousand major operations, I feel it my duty to call the attention of my brethren in still louder and more certain tones to the grievous wrong they are doing not only to their patient but to themselves, not only to the abdominal surgeon to whom they bring the case, but to the cause of surgery in general when they arbitrarily insist upon his leaving one ovary and tube, and promise the patient that no more will be done, when at the operation the other appendage is found to contain pus or to be buried in adhesions. I have actually seen half a dozen different operators in many different lands deliberately close the abdomen without doing anything because the condition found was not the one they had obtained the woman's consent to remedy, and they were all men with an international reputation.

One would think that, with the enormous aggregate experience which we now possess we should be able to make a more minute

---

*Read before Section on Gynecology and Obstetrics, Canadian Medical Association, Ottawa, June 10th, 1908.

diagnosis than ever; and yet the very opposite is true. The young man just out of college thinks we should be able to say exactly whether the tumor which is killing the patient is a cystic fibroid of the uterus or a fibrous cyst of the ovary. Indeed, one esteemed friend actually told me that he had delayed operation for a year because he was not sure whether the tumor was a fibroid or not, and he had been taught that fibroids should be left alone, as they often get well themselves after the menopause. That teaching nearly cost that patient her life, for as I will show later, a fibroid is a source of suffering and danger from the moment it is discovered.

While the inexperienced doctor thinks that an exact diagnosis is easy, and delays the life-saving operation until he knows exactly the nature of the trouble, we find men with an enormous experience, the Mayos for instance, saying that it is impossible to say before the abdomen is opened just exactly what will be found, and that we are making no mistake when we operate for a pus tube and find instead a tubal pregnancy before rupture. What would be a mistake, and an awful one at that, would be a conservative curetting with the patient dying on the table from internal hemorrhage, when a prompt and radical operation would have conserved the patient's life.

How many thousands of lives have been lost through the conservative treatment of cancer? The woman with irregular hemorrhages at or after the menopause has been treated for months when days were precious, with ergot or adrenalin, without an examination; and when the examination has been made more months are lost with local applications when even hours have become a question of life and death. And when we upbraid the family physician gently, and too often, alas, tell him that the time has passed for saving his patient, he puts in the plea that he thought it was cancer, but was not sure, as there was no foul-smelling discharge, and he did not like to advise anything rash. Everyone should know that a foul-smelling discharge in cancer means an order for a coffin. He is conservative in his treatment, but he is not conservative of the patient's life. Or a woman comes to him with a small, hard lump in the breast. He finds no lumps in the axilla, and, being conservative, he tells her to leave it alone and to come back in six months. She goes away delighted, not knowing that in those few conservative words he has pronounced her sentence of death. When she comes back six months later with the nipple retracted and enlarged glands in the axilla he takes her to the gynecologist, who has had a large experience of such cases; but he sees by the latter's tone that it is too late to save her life, which but for his mistaken conservatism he might have saved. More than one good medical friend has told me, after the patient had left my consulting room, that that was the most unhappy moment of his life. In both of these cases, and they are happening every day, there was a time when the cancer was no larger than a pea and when operative treatment would have given no deaths and a hundred per cent. of cures; while waiting for a sure diagnosis will give an operation mortality of four or five per cent. and a mortality of 80 per cent. before three years; with only four alive after six years.

But to confine myself more exactly to the abdominal work of the gynecologist; there is here more than enough of disappointment and regret, due to mistaken conservatism, to more than fill this paper. I have forgotten all about the several hundred women who came to me with pus tubes, and who, after several years of invalidism due to peritonitis, had them completely removed, and thereby gained robust health and the restoration of marital relations. But time has not effaced the mortification of having exposed some twenty women to the suffering and danger of a laparotomy without having relieved them of their pain. Twenty years ago I only conserved one of two diseased ovaries under compulsion, after giving the woman distinctly to understand that if the operation proved a failure it was her fault and not mine. Notwithstanding this understanding, I have received insulting letters from several of them, saying, among other things, that "if I did not know how to cure them I should have sent them to someone who did." A few even went so far as to say that I should have used my own judgment and done what was necessary in spite of their injunction to the contrary. During the last five years I must say, in justice to the patients, it has not been their fault if I have adopted this foolish conservatism. One is more or less the result of his surroundings, and it is almost impossible not to be influenced by public opinion, no matter how well we know and how anxious we are to do what is best. Consequently during the last five years I have had to do a second and much more difficult operation on at least ten women who might have easily been cured by the first one done by me; while more than ten times the second operation was done on the victims of conservative, or rather incomplete, work by other, and some of them more able, operators. Half a dozen times I have had my hand on the telephone to ring them up and tell them that Mrs. X., from whom they had removed one ovary and tube a year or two ago was in my office, suffering worse than ever, demanding a second laparotomy, but refusing to go back to the first operator. But I knew how unhappy such a message would make me, and I spared them. Some of these cases I tried to pacify by telling them that they had had a child since, which they would not have had if their first operation had been complete; but they indignantly replied that they had suffered all the time they were carrying it and ever since its birth. The most unhappy part of it is that while I am an unwilling listener to their complaints, the same number of my conservative failures are complaining to other operators of my incapacity. Then back of these women again are all the hundreds of women in their little towns who are dragging out a wretched existence, and who could be absolutely cured by a thorough operation, but are deterred from undergoing it by the bitter experience of their unfortunate sister, who because she has had another child is reported at the society as a brilliant success. I have been taken to task at a great society meeting for putting in a feeble plea for these unoperated ones. The speaker said, "I hope that it will not go forth as the opinion of this society that our treatment of any given case should be influenced in the slightest degree by the effect such treatment might have upon similar cases not under our treatment, no matter how numerous they might be." I said nothing, but I thought his remark very heartless. But in this case it does not even apply. Women come to us for relief. They care nothing whether it is a teratoma or a gyroma that is killing them. What they want is health. They are not clamoring for more children, but for strength to take care of those they have. To them a successful operation does not mean getting off the operating table alive, but it means freedom from pain, in the abdomen at least, for the rest of their life. And if in a few months or a year after their operation they are suffering worse than ever and have to have another and more serious operation (all second operations are more serious than the first one, owing to adhesions) the idea will soon spread that once a woman has an operation she will keep on having them. This is one of the most difficult objections we have to meet when we propose an operation which is really necessary. The objection is all the more difficult to meet because it is valid. I have had more than one woman under my care who has had the following discouraging experience: First a pain in the left side, which is worse at the periods, and which has grown steadily worse in spite of medical treatment and a curetting by her own doctor. Then a visit to the gynecologist for removal of the left ovary only. At the operation the other ovary was found to be cystic and sclerosed, but was only cauterized or the cyst incised. She was just getting into fairly good condition when the same kind of pain began in the right side; a third operation for removal of the right ovary.

Much better health for several years, and then another kind of pain with digestive disturbances, attributed to adhesions, for which nothing could be done, until one night she was taken with severe pain and vomiting came on, looking very like obstruction. Another doctor is called in consultation, and he, being unbiased by her former experience, at once pronounces it appendicitis, for which a fourth operation is performed. Then at last she gets into better health than she has had for years, and, barring the ventral hernia, she is perfectly happy. When this has been repaired by her fifth operation, which is very difficult but entirely successful, she enjoys robust health. Unfortunately while all this is going on there are several women in her town who form a sort of unsuccessful operation club, opposed to all operations, which does not help the cause of good surgery.

Now, what is the remedy for these unfortunate experiences? First, let the family doctor do all he can to help that sclerosing left ovary and that weak appendix along. The left ovary was born with trouble, one might say, for the left ovarian vein enters the left renal vein at right angles to the current of blood, while the right one enters the inferior vena cava at an acute angle, which is much more favorable, so that it takes a year more of disease to make the right ovary as painful as the left. But as if that were not enough of a handicap, there is the loaded rectum, with a pound or two of hard fœces nipping that delicate left ovarian vein at the brim of the pelvis. Then there is the handicap of fashion, which applies to both ovaries alike in obstructing the venous circulation. Then there is the handicap of old maidhood, which never gives the ovaries the physiological rest to which they are entitled by pregnancy and lactation. And still another handicap of a long engagement, which keeps them choked with blood. These and many other handicaps the family doctor must remove if he can, and he can most of them if he has the patience and courage. Also let him do his best with local application for a year; in nine cases out of ten he will succeed. But if, on the contrary, in the tenth case the suffering is becoming so great as to be unendurable and the patient has to spend most of her time in bed, he has done his best and the time has come to bring her to a gynecologist who does thorough work. Don't tie his hands; on the contrary, put the responsibility on him to effect a cure, but leave him free to do all that should be done at the one sitting. Let him remove both ovaries and tubes and the appendix and do a ventrofixation; and if she is an overfed woman even suggest that while he has his hand in the abdomen that he should explore the gall bladder and the common duct. Then, if he sews up the abdomen with three layers, this will be her first, last and only operation, and the chances are that she will be well. During a recent visit to the Mayo brothers at Rochester, Dr. Willie Mayo told me of a case where even he had nearly lost a patient by committing the following blunder: He had removed a pair of pus tubes in a satisfactory manner, and all went well for nearly a week, when the case went wrong, pain, temperature and vomiting. He thought there must be adhesions and obstruction of the bowel, so he reopened, but could find nothing of the kind. He was about to close in a hurry, when it suddenly occurred to him to look at the appendix. On doing so he found it hanging down in the pelvis, gangrenous and almost perforated, with a stone in the end of it and bathed in pus. He removed the offending organ and the patient promptly recovered. In spite of that lesson he had another and a final one a year later, when, after removing a large and difficult tumor, he was about to close when Ochsner, of Chicago, who was standing beside him, asked if he had not better look to the appendix. He replied: "That is not necessary; she has never complained of it." However, to please his guest, he dragged it up out of a bed of adhesions, and found to his mortification a large stone in the end of it. The woman afterwards remembered that she had had a severe attack of pain in that side when a child. Ever since that second lesson he has never failed to look at the appendix, and in most cases to remove it.

Another day, when I asked him if he ever did conservative work on the ovaries, he said most emphatically, "No. I only do two things to the ovaries—either take them out or leave them severely alone." I actually saw him put back two large cystic ovaries after a myomectomy without even emptying the cysts. He said that some of his most difficult laparotomies had been for the removal of ovaries which had been tinkered with at a previous operation.

About fifteen years ago I had the good fortune to hear a paper at the American Gynecological Society by Edebohls, of New York, advocating more thorough work, after which I began to do six or seven operations at one sitting of sixty or seventy minutes, and the results have been most satisfactory. At that time we did not know much about the appendix, so it was not included in the list of combined operations. But a few years ago I read a paper entitled "Should the Appendix be removed in every case in which the abdomen is opened for other reasons?" before the American Gynecological Society, Niagara Falls meeting, and the discussion which ensued so thoroughly endorsed the affirmative view which I took that I have ever since carried out this plan, except in a few cases where it would have endangered the patient's life to prolong the operation even a few minutes. Owing to gradual improvements in the technique, we can do the operation of appendectomy in less than six minutes in such a safe way that it does not add even one per cent. of risk to the average abdominal section. When I have done this in addition to the dilatation and curetting, amputation of the cervix and anterior and posterior colporrhaphy, then removed the tubes and ovaries, explored the gall bladder and done ventro-fixation, I feel that I have done thorough work and that I will be spared the mortification of having my patients going to another operator to have my work completed.

238 Bishop Street.

Physician's Library.

State Board Questions and Answers. By R. Max Goepp, M.D., Professor of Clinical Medicine at the Philadelphia Polyclinic. Octavo volume of 684 pages. Philadelphia and London: W. B. Saunders Company, 1908. Canadian Agents, Toronto: J. A. Carveth & Co., Ltd. Cloth, $4.00 net. Half Morocco, $5.50 net.

Students of medicine in Canadian Universities who propose going to some of the States of the American union will welcome this volume, which is decidedly comprehensive and embraces the entire range of examinations. It is in fact a compend on a large scale. It has been gotten together from sifting the wheat from the chaff—the chaff being repetitions—from state board examinations of the past four years. We find the definitions so practical that we can as well recommend it to Canadian students of all grades.

Subcutaneous Hydrocarbon Protheses. By F. Strange Kolle, M.D., author of the Recent Roentgen Discovery; the X-Rays, Their Production and Application; Medio-Surgical Radiography, etc., etc. The Grafton Press, New York.

The aim of the author in this book has been accomplished. He has placed before the medical profession a clear, practical and concise treatise on the subcutaneous employment of hydrocarbons for the correction of defects about the face, neck and shoulders. The book is nicely illustrated.

Handbook of Medicine and Therapeutics. Wheeler and Jack. Edinburgh: E. and S. Livingstone. Price, 8s.

The student of medicine will find in this book much to enable him to receive and digest the main features of the various diseases. That it has now attained to its third edition speaks for itself. It will be found very helpful just prior to an examination in getting together as many salient points as possible in the least possible time.

The Canadian Medical Protective Association

ORGANIZED AT WINNIPEG, 1901

Under the Auspices of the Canadian Medical Association

THE objects of this Association are to unite the profession of the Dominion for mutual help and protection against unjust, improper or harassing cases of malpractice brought against a member who is not guilty of wrong-doing, and who frequently suffers owing to want of assistance at the right time; and rather than submit to exposure in the courts, and thus gain unenviable notoriety, he is forced to endure black mailing.

The Association affords a ready channel where even those who feel that they are perfectly safe (which no one is) can for a small fee enroll themselves and so assist a professional brother in distress.

Experience has abundantly shown how useful the Association has been since its organization.

The Association has not lost a single case that it has agreed to defend.

The annual fee is only $3.00 at present, payable in January of each year.

The Association expects and hopes for the united support of the profession.

We have a bright and useful future if the profession will unite and join our ranks.

EXECUTIVE.

President—R. W. POWELL, M.D., Ottawa.
Vice-President—J. O. CAMARIND, M.D., Sherbrooke.
Secretary-Treasurer—J. F. ARGUE, M.D., Ottawa.

SOLICITOR.

F. H. CHRYSLER, K.C., Ottawa.

Send fees to the Secretary-Treasurer by Express Order, Money Order, **Postal Note** or Registered letter. If cheques are sent please add commission.

PROVINCIAL EXECUTIVES.

ONTARIO—E. E. King, Toronto; I. Olmsted, Hamilton; D. H. Arnott, London: J. C. Connell, Kingston; J. D. Courtenay, Ottawa.

QUEBEC—H. S. Birkett, Montreal; E. P. Lachapelle, Montreal; J. E. Dube, **Montreal**: H. R. Ross, Quebec; Russell Thomas, Lennoxville.

NEW BRUNSWICK—T. D. Walker, St. John; A. B. Atherton, Fredericton; **Murray** MacLaren, St. John.

NOVA SCOTIA—John Stewart, Halifax; J. W. T. Patton, Truro; H. Kendall, **Sydney**.

PRINCE EDWARD ISLAND—S. R. Jenkins, Charlottetown.

MANITOBA—Harvey Smith, Winnipeg; J. A. MacArthur, Winnipeg; J. Hardy, **Morden**.

NORTH-WEST TERRITORIES—J. D. Lafferty, Calgary; M. Seymour, Regina.

BRITISH COLUMBIA—S. J. Tunstall, Vancouver; O. M. Jones, **Victoria**; Dr. King, Cranbrooke.

Dominion Medical Monthly

And Ontario Medical Journal

EDITORS:

GRAHAM CHAMBERS, B.A., M.B. WALTER McKEOWN, B.A., M.D.

ASSOCIATE EDITOR:

T. B. RICHARDSON, M.D.

MANAGING EDITOR:

GEORGE ELLIOTT, M.D.

Published on the 15th of each month. Address all Communications and make all Cheques, Post Office Orders and Postal Notes payable to the Publisher, GEORGE ELLIOTT, 203 Beverley St., Toronto, Canada

VOL. XXXI. TORONTO, JULY, 1908. No. 1.

COMMENT FROM MONTH TO MONTH.

The Canadian Medical Association's forty-first annual meeting at Ottawa on the 9th, 10th and 11th of June, was in every way a pronounced success. The new constitution seemed to work out easily and smoothly, and it was encouraging that three provinces interested themselves and sent delegates to the Executive Council. From Ontario the following were elected, but unfortunately not one was able to be present. Drs. F. N. G. Starr, A. R. Gordon, R. D. Rudolf, D. J. G. Wishart and Chas. P. Lusk, all of Toronto. British Columbia delegated Dr. S. J. Tunstall, Vancouver, and Dr. R. Eden Walker, New Westminster; the latter was present. Prince Edward Island Medical Society sent its President, Dr. Alex. McNeill of Summerside, and Dr. S. R. Jenkins, Charlottetown. The fifteen members of the Executive elected in open session were: Dr. R. W. Powell, Ottawa; Dr. A. T. Shillington, Ottawa; Dr. W. J. Bradley, Ottawa; Dr. R. A. Reeve, Toronto; Dr. C. J. C. O. Hastings, Toronto; Dr. J. T. Fotheringham, Toronto; Dr. J. H. Elliott, Toronto; Dr. Wm. Hackney, Ottawa; Dr. James Bell, Montreal; Dr. George E. Armstrong, Montreal; Dr. F. A. L. Lockhart, Montreal; Dr. J. C. Mitchell, Brockville; Dr. E. P. Lachapelle, Montreal; Dr. G. Carleton Jones, Ottawa; Dr. A. B. Atherton, Fredericton; President, Treasurer and General Secretary, ex-officio.

The Finance Committee elected by the Executive Council were: Dr. J. T. Fotheringham, Dr. F. N. G. Starr, Dr. Geo. E. Armstrong, Dr. James Bell and Dr. R. W. Powell. Dr. Fotheringham was elected Chairman.

The Report of Special Committee on a Journal, signed by Dr. A. Macphail, Montreal, read as follows: 'We, the undersigned, the only members present of a committee (Dr. Murray McLaren, St. John, N.B., being present) appointed to consider the advisability of publishing a journal of the Canadian Medical Association, beg to report that, after a correspondence with the other members and a full consideration of the matter, in our judgment the undertaking is feasible, provided that all members pay a fee of five dollars, of which three dollars will be assigned from each member for the purposes of a journal. We estimate that with 1,500 subscribers the undertaking would be a success. We recommend that the matter be now referred to the Finance Committee.

Reference Committees.—The Chairmen of these were appointed by the Executive Council with power to add to their number: Dr. A. T. Shillington, Ottawa, Chairman of Committee on Medical Legislation; Dr. R. A. Reeve, Toronto, Chairman of Committee on Medical Education; Dr. C. J. Hastings, Toronto, Chairman of Committee on Public Health and Hygiene; Dr. H. B. Small, Ottawa, Chairman of Committee on Amendments to Constitution and By-Laws; Dr. F. A. L. Lockhart, Montreal, Chairman of Committee on Reports of Officers; Dr. J. H. Elliott, Toronto, Chairman of Committee on Necrology.

Milk Commission of Canadian Medical Association.—The Executive Council appointed the following Special Committee with power to add to their number on the question of pure milk: Dr. C. J. Hastings, Toronto (Convener); Dr. W. H. Eagar, Halifax; Dr. T. D. Walker, St. John; Dr. S. R. Jenkins, Charlottetown; Dr. R. Eden Walker, New Westminster; Dr. A. D. Blackader, Montreal; Dr. A. McPhedran, Toronto; Dr. W. B. Thistle, Toronto; Dr. J. T. Fotheringham, Toronto; Dr. Popham, Winnipeg; Dr. W. I. Bradley, Ottawa; Dr. J. L. Chabot, Ottawa; Dr. A. B. Atherton, Fredericton.

Special features of the C. M. A. meeting were the beautiful programme gotten up by the Programme Committee, the President's Address and Mr. Dooley's monologue. The former was the nicest ever in our history. From a scientific standpoint and from a sectional standpoint, nothing could have been better arranged, indeed the chairmen of the sections were abundantly satisfied with how everything proceeded. The President's address was so admirable that it needs a passing notice. On all hands it was spoken of with eminent approbation. We have been privileged to produce it on another page. We have also been favored with Mr. Gordon Rogers' original monologue, given at the Smoking Concert, and which was received with so much favor.

Winnipeg was selected as the place of meeting in 1909. The presidents and secretaries of the provincial medical societies were appointed vice-presidents and local secretaries, with the exception of Quebec, which has no provincial society for that province. Dr. F. A. L. Lockhart and Dr. C. A. Peters, Montreal, were elected vice-president and local secretary respectively. Dr. R. J. Blanchard, Winnipeg, was elected president. Dr. H. B. Small, Ottawa, and Dr. George Elliott, Toronto, were re-elected Treasurer and General Secretary respectively.

The meeting of the Ontario Medical Association in Hamilton the latter end of May was a huge success. This was no doubt due to the great popularity of the President, Dr. Ingersoll Olmsted, and to the extremely excellent programme gotten up. In other than in scientific proceedings it did good work. Particularly noticeable being the resolution with regard to the appointments of Hospital for the Insane superintendents. This should be prominently brought to the attention of the "powers that be"—and kept there. In fact it is up to the Ontario Medical Association to see this hideous practice of appointing Hospital for Insane superintendents for political knowledge and agility, be bludgeoned to death.

It was the largest meeting of the Association ever held, 317 being present. It would prove that it will be a good thing for this Association to take a little exercise now and again in the way of travel and sight-seeing. In this particular instance it was a case of Mahomet going to the mountain. Next year the mountain will have to reciprocate. We wish to congratulate Dr. H. J. Hamilton upon being elected to the Presidency, and to Dr. E. Stanley Ryerson, Toronto, for that of General Secretaryship. Next year the meeting will be held in Toronto. Much regret was expressed at Dr. Lusk retiring from the secretaryship, as he had proven such an admirable executive officer.

News Items

DR. TELFER and wife, of Montreal, are visitors at the old home, near Burgoyne.

DR. J. A. ANDERSON, of Trenton, a graduate of Toronto University, has opened up a practice at Lisle, Ont.

DR. GORDON S. COCKBURN, of the Department of Public Health, New York City, is in Sturgeon Falls on a few weeks' visit to his parents, Mr. and Mrs. J. D. Cockburn.

DR. R. M. CUMBERLAND, son of W. B. Cumberland, of Rosemont, has purchased the practice of Dr. Lougheed, Glenboro, Man., a flourishing town about 100 miles west of Winnipeg.

Welland County Medical Association held their annual meeting in the City Hall, Welland, with a good attendance. The following officers were elected: President, Dr. J. H. Howell, Welland; Vice-Presidents, Dr. Old, Port Colborne; Dr. Snyder, Ridgeway; Dr. J. M. Dalrymple, Fenwick; Secretary-Treasurer, Dr. E. L. Garner, Welland. Dr. L. F. Barker, of Johns Hopkins Hospital, Baltimore, gave an interesting address on nervous diseases, and Dr. E. L. Garner, of Welland, a paper on practical experimental surgery, as witnessed by himself in the Johns Hopkins Hospital this summer.

MACMILLAN- NICHOLAS.—A very pretty wedding took place on Wednesday evening at the home of Mr. and Mrs. E. Nicholas, of Camosun Street, Victoria, when their youngest daughter, Hattie, and Dr. Lachlan MacMillan, of Vancouver, were united in the bonds of holy matrimony. The wedding was a quiet one, only a few of the most intimate friends of the bride and groom being present. The ceremony was performed by Rev. Joseph McCoy, of Knox Presbyterian Church. The bride was attended by Miss B. Lawrence, while Dr. McNeill supported the groom. Conspicuous among the many presents was a beautiful cut-glass piece from the congregation of Knox Presbyterian Church, where the bride has been organist for a number of years. At the close of the ceremony a reception was held at the home of the bride's parents. Dr. MacMillan and bride afterwards left for the Sound, where the honeymoon will be spent. They will subsequently take up their residence in Vancouver, where Dr. MacMillan is now practising his

Publishers' Department

THE old and reliable house of Wm. R. Warner & Co. will be incorporated under the laws of Pennsylvania, with Mr. Wm. R. Warner, Jr., retaining his connection as President of the corporation. This move enables Mr. Warner, who has managed the entire business, to transfer to others many of the details of management, and at the same time assures his host of friends and patrons in the trade of a continuation of the safe and conservative policy which has proven the keynote of its success, and which has characterized it from its foundation in 1856.

TREATMENT OF DYSMENORRHEA.—Since dysmenorrhea, like all other anomalies of menstruation, is merely a symptom of a pathologic state of the uterus or one or more of its appendages, it is perfectly obvious that remedial agents capable of effecting the removal of the underlying cause are preferable, in its treatment, to drugs that are solely palliative in action. In the treatment of all varieties of dysmenorrhea it is possible to relieve the pain at once, normalize the pelvic circulation, restore the uterine contractile power and correctively affect the acting cause. By such a course the comfort of the subject is more promptly brought about and durable relief is more easily effected. These ends can be achieved by the administration of Ergoapiol (Smith) in doses of one capsule four times daily during the menstrual period. In the treatment of recurrent dysmenorrhea, the most gratifying results are obtained by beginning the administration of Ergoapiol (Smith) three or four days in advance of the catamenia and continuing its employment until menstruation has ceased. Despite the fact that Ergoapiol (Smith) exerts a pronounced analgesic and sedative effect upon the entire reproductive system, its use is not attended with the objectionable by-effects associated with anodyne or narcotic drugs. The unvariable certainty, agreeableness and singular promptness with which Ergoapiol (Smith) relieves the several varieties of dysmenorrhea has earned for it the unqualified indorsement of those members of the profession who have subjected it to exacting clinical tests. Whilst hot sitz-baths, vaginal injections and similar measures may be advantageously employed in conjunction with Ergoapiol (Smith), their use is not essential; in fact, the preparation will invariably prove sufficient to relieve the pain attending menstruation. The impressive analgesic and tonic action of Ergoapiol (Smith) upon the uterus and its appendages render it of conspicuous service in the treatment of all anomalies of the catamenia associated with pain.

Gastro-Intestinal Ailments of Young Children.—As the hot weather approaches the usual number of cases of gastro-intestinal ailments will confront us and if we be not alert the same mortality of old will occur among our little patients of one and two years. The keynote to success in the management of these cases is to see that correct feeding is enforced and to keep the alimentary canal as clean and as nearly aseptic as is possible. If this be done much suffering can be obviated and many little lives saved. Every medical man these days is capable of giving correct advice on infant feeding, the care of bottles, accessories, etc., if he will only take the time and trouble to make the mother understand how important it all is. The doctor's suggestions on this matter are too often regarded as simply platitudes and not thought of seriously until the child is in the throes of a severe illness. The following clinical reports are illustrative of my usual method of handling the more common but serious gastro-intestinal diseases we meet during the heated season: Ethel G., aged ten months, suffering from cholera infantum, bottle fed. Was passing watery stools every few minutes. Temperature had been considerably elevated, but was now slightly subnormal. Mouth and tongue parched. Considerable emaciation and a scaphoid abdomen. Circulation weak and respirations labored. In fact an extreme prostrate condition. Treatment: I put four ounces of Glyco-Thymoline with eight ounces of water and gave it as a high enema, causing it to be retained as long as possible. This was repeated every hour or so until the bowels were thoroughly cleansed and the stools diminishing in number. Gave one-tenth grain of calomel every hour until the discharges showed the characteristic greenish color. Also gave the following:

Elixir Lactopeptine	℥ ij
Glyco-Thymoline	℥ ij
Oil Peppermint ....gtt.	j

M. Sig.—20 drops every hour. After eight hours the child was able to take nourishment and retain it. This consisted of pasteurized milk diluted with an equal portion of lime water. Child was given all the cold water and lemonade she wanted. She made a good recovery. Johnnie M., aged fourteen months, suffered from gastro-enteritis with much fermentation. Bowels swollen and tympanitic. Fever of a remittent type due to autotoxemia. Child delicate and poorly nourished, still nursing the mother's breast. Mother herself in poor health and in no condition to nourish her child. Treatment: Put the little one on cow's milk diluted with lime water. Three times a week I gave a high enema of a warm saline solution and Glyco-Thymoline equal parts. Also gave the above prescription, a teaspoonful every four hours. Child steadily improved under this treatment and in six weeks was in a good state of nutrition and health. A point that I wish to emphasize in these notes is that Glyco-Thymoline is a most excellent antacid and antiseptic and deserves special consideration in the stomach and bowel disorders of young children. It gives prompt and gratifying results.—*H. B. Brown, M.D., Waukegan, Ill.*

Canadian National Exhibition.—Prize lists now being distributed and attractions arranged for on a grander scale than ever. The Prize List of the Canadian National Exhibition of Toronto, to be held this year between August 29th and September 14th is in course of circulation. A number of changes have been made in the way of improvements. Considerable additions have also been made to several of the classes; among others $1,100.00 is to be divided into six prizes for the best decorated floral display on floor space not exceeding 500 square feet. The object of this change is to improve the appearance of the Agricultural Building, and to induce exhibitors to show their ability in the way of designing flowers, plants and shrubs for decorative purposes. Mr. Geo. H. Gooderham has donated $50 for a special prize for the best Clyde or Shire stallion and progeny. The Shire Horse Society of England have donated two Gold Medals. The English Hackney Horse Society have donated three silver medals, and the Dominion Shorthorn Association and Clydesdale Association make their usual liberal contributions, the former of $2,000 and the latter of $500. Several classes for commercial horses have also been arranged. In short, the Prize List gives the usual indications of advancement. The increase of prizes for the Agricultural Section amounts to upwards of $700. Special efforts have been put forth to make this year's exhibit of Art the greatest and most representative of the different schools that has ever been made in any City of America. Pictures have been secured from Florence, Munich, Paris and England. His Majesty, the King, in particular has consented to the exhibition of Lady Butler's world-renowned picture, "Scotland for Ever." His Majesty has also consented to the visit to the exhibition of the magnificent Band of the Royal Artillery of Woolwich, acknowledged to be the finest in either of the services, and the Band will give select concerts twice daily as well as take the leading part in a grand international military tattoo and the best spectacle yet produced, illustrating The Siege of Sebastopol and the victory of the allied forces of Britain and France. Arrangements have also been made for an exceptionally fine educational exhibit. In short, every effort is being made by the directorate not alone to maintain the standard of Canada's great National Exhibition but to improve it in all departments. It should be mentioned that the premiums and prizes will reach the handsome sum of $50,000 and that entries close with the Secretary, J. O. Orr, City Hall, Toronto, on Wednesday, August 5th, to whom application for prize lists, entry blanks, space and any information required should also be addressed.

Gastralgia.—Papine in teaspoonful doses, given every two or three hours will promptly relieve the severe pain associated with gastralgia. The effect of one dose is often prolonged for five or six hours.

A Financial "Simile."—The prudent financier always has, at his command, a reserve store of sound securities with which to meet the demands of a period of monetary stringency. Likewise, the *healthy* individual maintains, in his vital bank account, a reasonably liberal balance of forceful energy, upon which he may draw during periods of physical stress and strain. When, however, the business man gambles with his capital, his financial reserve is often hypothecated and is thus unavailable in times of emergency. So it is with the man or woman who improvidently consumes the physical capital with which nature liberally endows the human organism. Too liberal and too frequent drafts deplete the vital store more rapidly than the normal deposits of force and energy are credited to the physical account. It is just at this period that the physician is consulted in his capacity as a physico-financial expert. Upon his advice, at this critical juncture, depends the vital solvency of the patient. The undue expenditure of energy must be checked; the vital assets must be conserved; timely deposits of negotiable funds must be entered to the credit of the impaired balance. The vital bank account of the depleted anemic, the over-tired, over-worked neurasthenic, the chronic dyspeptic, the exsanguinated surgical patient, the marasmic infant and the exhausted convalescent are all in need of such deposits of vital energy. As the round gold "coin of the realm" is the standard of financial value, so is the round hemoglobin-carrying, oxygen-bearing red corpuscle of the blood the circulating medium of all vital exchange and interchange. To avert an impending physical bankruptcy, there is urgent need for the adoption of prompt measures to increase the deposit of these necessary erythrocytes. Pepto-Mangan (Gude) quickly adds to the circulating medium, by constructing new red cells and reconstructing those that have retrograded because of over-drafts of force and energy. It increases the appetite, stimulates and encourages the absorption of blood-building nutritive material, augments the hematinic richness of the circulating fluid, increases the number and establishes the structural integrity of the corpuscular elements of the blood. It thus successfully plays the *rôle* of the depositor of vitality to the account of the patient who needs such essential additions to his or her physical credit.

A VALUABLE THERAPEUTIC AGENT.—One of the principal subjective symptoms of any disease, or disturbance of nature, is pain, and what the patients most often apply to us for, is the relief of this annoying and troublesome feature. If we can arrest this promptly, they are much more liable to trust to us for the remedies which will effect a permanent cure. The everlasting resort to morphine is overcome in a great measure by the employment of reliable coal tar products. In cases of intermittent fever it is best to prescribe doses of one or two antikamnia tablets when the first chill comes on. I also find them most valuable in controlling headaches of a neuralgic origin. Rarely more than two tablets are necessary; the pain is promptly dissipated and the patient can go about as usual. The tablets of antikamnia and codeine, I consider the best and most useful in controlling severe pain. I have used them after surgical operations as a substitute for morphine, and find them eminently satisfactory. In controlling the severer forms of neuralgia they rank next to morphine itself.—C. P. Robbins, M.D., Louisville, Ky., Assistant to the Chair of Obstetrics and Gynaecology and Chief of Clinic, Hospital College of Medicine, in *Medical Progress*.

Dominion Medical Monthly
And Ontario Medical Journal

Vol. XXXI. TORONTO, AUGUST, 1908. No. 2.

Original Articles.

THE VALUE OF THE REFLEXES IN DIAGNOSIS.*

BY J. S. RISIEN RUSSELL, M.D., LONDON, ENG.

Mr. President, Ladies and Gentlemen:—It has been my good fortune to receive many kindnesses from our profession, and it has been my privilege to address distinguished audiences. Fully as I appreciate the honors I have enjoyed, and grateful as I am of the consideration that has been extended to me in the past, I feel that the honor your Council has done me far exceeds anything that I have hitherto experienced.

I can imagine no greater compliment than to be entrusted with the delivery of the Address in Medicine at so important a meeting as the Canadian Medical Association is holding in Ottawa to-day, and I am confident that those who have been good enough to honor me in the past would be the first to admit that the position in which your Council has now placed me is the most honored I have ever filled.

There are, Sir, some moments that cannot find adequate expression in words. My gratitude is very sincere, but I am too conscious of my inability to find a portal sufficiently wide to convey the full depth of my feelings, to make me risk the attempt that would be sure to end in failure.

No words of mine can ever thank you enough for the great honor which you have done me.

When attempting to decide upon what subject to address you it naturally occurred to me that it must be on something of neurological interest, as it was improbable that any general survey of medicine would be expected from one who had devoted so much time to a special department.

---

*Address in Medicine, read before the Canadian Medical Association, June 10th, 1908.

On reviewing the neurological subjects that seemed most suitable, the usual difficulty was experienced in deciding which to select. It was not without many misgivings that the value of the reflexes in diagnosis was finally chosen as likely to be the most profitable, for I am very conscious of the large amount of work of the greatest possible excellence that has been done on this side of the Atlantic. Three considerations mainly encouraged me to adhere to my decision. One was that the same objection could be urged in regard to any subject I might choose. Another was that so much work has been done on the reflexes during recent years, and so much that is contradictory has been written about them, that there is a danger that the profession may become sceptical as to their value. The third consideration that influenced me was that so many new methods of diagnosis are now in vogue that there may be too great a tendency to rely on these to the exclusion of the reflexes, which they should only be allowed to supplement, not supplant.

We cannot too carefully safeguard the reflexes, for we can ill afford to do without them, and what is especially satisfactory to the practitioner is that no laboratory or special apparatus is needed when applying the tests necessary to derive information from them.

When selecting the subject I did not lose sight of the fact that there would be many present at this meeting to whom I could not presume to offer any remarks that would either prove of interest or profit, but it seemed certain that the bulk of those attending the congress would be men busily engaged in the toils of general practice, with but little leisure for reading. Much as you may be interested in the scientific investigations of the age, and the great discoveries that are constantly being made, you naturally wish to know how far the results obtained by these researches may be utilized by you in your endeavors to minimize the sum total of human suffering and to promote the general well-being of the community.

I cannot help feeling that those of you who have perused the literature that has grown up around the subject of the reflexes must be inclined to doubt the value which attaches both to the tendon-jerks and the superficial reflexes in diagnosis, for fresh from reading a paper in which the author insists on this or that phenomenon as a sure sign of organic disease, you take up another in which the writer as confidently asserts that certain alterations of the reflexes have not the value that has been ascribed to them, as he has met with the abnormal sign in functional as well as in organic conditions of the nervous system. You accordingly find it difficult to decide which of the conflicting statements to believe, for the opportunities of putting these matters to the test do not occur sufficiently often in your practice to permit of you coming to any satisfactory conclusion from your own observations.

It is, therefore, natural that you should look to those whose work brings them into daily contact with these problems, and who have endless opportunities of testing the conflicting views expressed by different authors, to assist you to decide what is true, and what is not; on what evidence you may place confidence, and what you should mistrust and discard.

It thus seems probable that no better use can be made of an opportunity like the present than to attempt to show that, in spite of much that you may see written to the contrary, the reflexes are of the utmost value in the diagnosis of affections of the nervous system.

Time will not permit me to quote cases in support of what I have to say, but I can assure you that all the facts to which I propose to call your attention are based on practical experience of these matters, and that actual cases which substantiate the statements occur to me as I recount the facts which I deem worthy of your acceptance as likely to prove helpful to you in the problems that confront you from time to time in the routine of your practice.

An attempt will be made to show that the reflexes are of value:

1. In the diagnosis of organic from functionary affections of the nervous system.
2. In the diagnosis of one organic disease from another.
3. In localizing the seat of the morbid process.
4. In determining the extent and severity of the mischief.
5. That there are limitations to the value of the reflexes.
6. What part they play in the diagnosis of maladies outside the realms of neurology.

It will, of course, be impossible to deal with all of the reflexes in the time at our disposal, and it will be equally impossible to discuss more than some of the more important aspects of the subjects I have outlined, without pretending that any exhaustive consideration of them in their many bearings is at all possible.

1. Diagnosis of Organic from Functional Affections.

One is inclined to question either the observation or the judgment of the author who, having elicited the extensor type of plantar reflex after an attack of convulsions, nevertheless concludes that the attack has been hysterical and not epileptic.

That true epilepsy may occur in a person otherwise hysterical, and that an epileptic attack may be followed by an hysterical state, are facts too well recognized to call for more than passing notice; but it is difficult to refrain from a desire to have the opportunity of observing the attack from its inception to its conclusion, before accepting the statement that hysteria was alone responsible for the convulsions which permitted the extensor type of plantar reflex to be elicited in the subject of the fit.

Abolition of the knee-jerks, followed by their exaggeration, coupled with ankle clonus, and supported by the extensor type of plantar reflex, form a combination which we have good reason to agree must be aids to the diagnosis of genuine epilepsy, as contrasted with either hysteria or malingering.

It is equally difficult to accept the opinion of the observer who asserts that the paralysis from which the patient suffered was hysterical, and yet the plantar reflex was of the extensor type, especially when he has no better proof to offer than that the patient got quite well, and that this phenomenon, like all the other abnormal signs, disappeared.

The names of such distinguished authorities are associated with statements of this kind, that the only way which seems possible to reconcile their views with one's own experience is to suppose that certain types of disseminate sclerosis, so common with us in England, must be rare in other countries, so that the vagaries of these varieties of the malady so much insisted on by Dr. Thomas Buzzard in his writings on the subject, have not as yet been recognized by observers who are mistaking for hysteria cases that are in reality examples of disseminate sclerosis. That this is so in some instances is evident even from the information given of the clinical history of the patient's illness. The remarkable way in which the clinical picture may clear up in a case of this disease after the most pronounced signs of organic change have been determined, makes it difficult to believe otherwise than that there is a time in the course of the malady when the lesion is of a kind that permits not only of restitution of function, but also of repair of structure, so that the nervous system is not only able to perform its work again in a normal manner, but is also free from any evidence of persisting structural damage.

These considerations open up a most interesting question that I dare not do more than touch on in connection with the diagnosis of neurasthenia. May not a functional condition of the kind occasion nutritional changes in the nervous system sufficiently profound to lead to alterations in the reflexes that are indistinguishable from those produced by organic disease?

Time will not permit me to discuss this matter in the way that its importance demands. Let me but say that from the practical standpoint it matters but little, for the majority of cases of neurasthenia present no such difficulty in diagnosis, and if such a condition of things as has been suggested be possible, there would be every reason to regard with as much concern the nervous system of such a patient as that of one suffering from some known organic disease, for such a condition cannot but be attended by grave consequences if unchecked by treatment.

2. The Diagnosis of One Organic Disease from Another.

Let us take a common example. A patient experiences difficulty in walking, owing to the inco-ordinate condition of his lower limbs. Two of the most common diseases likely to be responsible for this are tabes dorsalis and disseminate sclerosis.

How quickly it can be determined which of these diseases exists! No knee jerk, no ankle jerk, and the plantar reflex not altered to the extensor type in tabes make striking contrasts to the exaggeration of the knee jerk; exaggeration of the ankle-jerk, amounting, it may be, to clonus, and the plantar reflex of the extensor type in disseminate sclerosis.

Even if, in the latter disease, the knee and ankle-jerks fail us by being absent instead of being exaggerated, the plantar reflex is not likely to play us false. And if it does, is there not still the pupil reflex on which we can fall back for assistance? The pupil which fails to re-act to light while it preserves the possibility of re-acting on accommodation, is a phenomenon sufficiently rare in disseminate sclerosis, and common in tabes, to make it a further point of contrast between these two diseases.

Take another example. The patient has atrophy of the small muscles of the hand. One of the first things we are anxious to know is whether or not the reflexes are altered, for much depends on whether they are, both in regard to diagnosis and prognosis. Exaggerated knee-jerks, ankle-clonus, and the extensor plantar reflex tell their tale, for it is clear from them that the spinal cord is involved by the morbid process that is responsible for the muscular atrophy. Thus, by testing these reflexes, we at once glean information that is of the greatest import. By testing the arm-jerks and the jaw-jerk, the diagnosis may be carried a stage further, for in the presence of an exaggerated jaw-jerk or clonus there is little likelihood that any condition other than amyotrophic lateral sclerosis is to be held accountable for the muscular atrophy. Although the Rontgen rays have done much to facilitate diagnosis under these conditions, it cannot be said that they have in any way robbed the reflexes of the value that attached to them before the rays were put to such use. It may be safely said that the rays have supplemented, not supplanted, the reflexes in this sphere of their usefulness, for while they may reveal an accessory rib, caries or other disease of the cervical vertebræ to account for the muscular atrophy, in the absence of these conditions they cannot tell us whether the atrophy is of central or of peripheral origin, nor can they further give us the good idea the reflexes can as to which of the several affections of the spinal cord is likely to be responsible for the condition.

Two affections that may easily be confounded, and that present considerable difficulty of diagnosis at times, although at other times the clinical pictures are so widely different that there is no possibility of confounding them, are cerebellar tumor and disseminate sclerosis. A proper appreciation of the different behavior of the reflexes in the two conditions will go far towards clearing up the question that is in doubt; indeed, the diagnosis may largely, if not entirely, depend on what, if any, alterations are determined in the reflexes. While various alterations of the tendon-jerks obtain in tumor of the cerebellum which may accord with what is found in disseminate sclerosis, the superficial reflexes prove of distinct service in differential diagnosis, for the plantar reflex commonly assumes the extensor type at an early stage of disseminate sclerosis, while it only does so as a late event in a case of tumor of the cerebellum, and is then to be ascribed to some complication rather than to the morbid condition of the cerebellum itself.

The reservation that has had to be made in regard to the plantar reflex does not apply to the other superficial reflexes on which a diagnosis may be based, for, assuming that the local conditions of the abdominal walls be such as to permit the abdominal reflexes to be obtained, their absence may be regarded of considerable importance in diagnosis, for, while they are unaffected in cases of tumor of the cerebellum, they are absent in a large proportion of cases of disseminate sclerosis. The reflexes may thus serve to determine whether we are in the presence of an affection in which operative intervention may be expected to bring relief, or whether the morbid condition is one in which operation would not only be useless, but actually harmful.

It is impossible to leave this part of our subject without referring to the value that attaches to the extensor plantar reflex in the diagnosis between multiple peripheral neuritis, in which it is absent, and that fatal disease, subacute combined degeneration of the spinal cord, in which it is present, for, while the former condition may be expected to result in recovery under appropriate treatment, the latter runs its course to a fatal termination with unerring certainty in most, if not in all, cases.

3. Localizing the Seat of the Morbid Process.

The abolition of the reflexes in affections of the peripheral nerves, the variety of ways in which they may be affected in diseases of the spinal cord, and their unilateral exaggeration, diminution or special modification in affections of the brain, need no more than passing notice. It is impossible, however, to leave this part of our subject without a word of comment in regard to the part the reflexes play in the early diagnosis of morbid conditions of the brain and spinal cord, for it repeatedly happens that some departure of the reflexes from the normal standard is the first indication that we have, not only that organic disease exists, but as to what part of the nervous system is affected. Special note must also be taken of the important *rôle* they play in the localization of focal lesions of the spinal cord, in which connection nothing is more important than the aid to be derived from them in the diagnosis and localization of tumors of the cord.

The abolition of the reflexes which correspond to certain segments of the cord, the escape of all the reflexes above this level, and other exaggeration or other modification below it, must be regarded as the most valuable indications we have in determining the position of a focal lesion.

Similarly, unilateral alteration of the reflexes may be the first indication of which hemisphere of the brain is affected, and, while it may happen that hemiplagia or some other condition makes it superfluous for us to seek assistance from the reflexes, there are cases in which there is so much uncertainty that every source from which information can be gleaned must be welcomed, and then it is that the reflexes may prove invaluable. No better example of this can be found than what obtains in tumors of the frontal lobes of the brain. The difficulties of localization in such cases may prove well-nigh insurmountable, so that unilateral exaggeration of the knee-jerk or the appearance of ankle clonus on one side is welcomed. Of similar significance is the appearance of the extensor of the plantar reflex, or, as my colleague, Dr. Grainger Stewart, has shown, diminution or abolition of the superficial abdominal reflexes on the side opposite to that on which the tumor is situated.

Another class of case in which the reflexes may prove helpful is that in which the question to be decided is whether the disease is in the cerebellum or pons. The determination of this point becomes particularly important when a tumor is responsible for the symptoms, for, while those which occupy the pons are inoperable, no more successful class of intracranial tumor is met with from this standpoint than many of those which involve the cerebellum. They supply us with some of the most brilliant results of modern surgery. While there are many points on which the diagnosis must rest, it is not too much to claim for the reflexes that they play an important part in deciding the question at issue, for the earlier they become affected in the clinical history of the case, the more likely is the tumor to be situated in the pons, while the longer they remain unaltered the greater is the likelihood that the seat is the cerebellum. The knee-jerks cannot be said to be of material assistance in this connection, for, as already noted, they may become altered in uncomplicated cases of tumor of the cerebellum. It is, however, otherwise as regards ankle-clonus, and alterations of the superficial reflexes, for unilateral diminution or abolition of the abdominal reflexes, or alteration of the plantar reflexes to the extensor type, cannot be regarded otherwise than of importance in diagnosis, if they are determined sufficiently early in the clinical course of the patient's illness to make it improbable that they are the outcome of some complication rather than due to the original malady.

4. The Extent and Severity of the Mischief.

It would appear to be self-evident that, inasmuch as the various reflexes have different segments of the spinal cord on whose integrity they depend, the fewer that are lost the less extensive the lesions, and the wider the extent of their affection, but more widespread the distribution of the morbid process. It must be clearly recognized, however, that this is by no means necessarily the case, for, in reality, this only applies in some instances, for a very limited lesion may give rise to widespread alterations of the reflexes. Take, for example, a case in which the lesion is limited to the cervical region of the cord, and abolishes the scapulo-humeral and other arm reflexes. Many other reflexes will also be altered, though not necessarily abolished, so that among the abnormal phenomena to be looked for are exaggeration of the knee-jerks, ankle clonus, and the extensor type of plantar reflex.

No better example of the value of the reflexes in determining the severity of a lesion can be suggested than is supplied by the knee-jerks in cases of transverse lesions of the spinal cord above the lumbar enlargement, for when, instead of being exaggerated, they are abolished and remain absent, the gravest fears are justified. When the knee-jerks do not return there is every reason to fear a severance of the cord so complete as to preclude the possibility of re-establishment of the paths through the damaged segments of the cord. Ankle clonus, a phenomenon that we view with concern under other conditions, would now be welcomed, as this would indicate possibilities of recovery which would not have been justified had the knee and ankle-jerks remained absent.

5. Limitations to the Value of the Reflexes.

There are instances in which the reflexes only partly clear up the diagnostic problem. Take, for example, a case of myelitis with paraplegia as the result. From the reflexes alone the diagnosis may be made as to whether ordinary myelitis or polio-myelitis exists, but further than this they cannot take us. The X-rays may reveal tuberculous disease of the bone, which has not as yet produced spinal deformity, or the opsonic index may raise the suspicion of a tuberculous origin of the paraplegia in a way that is impossible to the reflexes.

Similarly, syphilitic pachymeningitis may not as yet have occasioned any alteration in the reflexes by which an organic condition can be diagnosed, and yet lumbar puncture may permit the determination of a leucocytosis that allows a positive diagnosis to be made. Or the behavior of the superficial reflexes may justify the diagnosis of an organic hemiplegia, while it requires the ophthalmoscope to say that a tumor is responsible for it, or lumbar puncture to indicate that the thrombosis which underlies it is of syphilitic origin.

Furthermore, it must be remembered that there are some affections of the nervous system in which a diagnosis is to be made without any necessary assistance from the reflexes. Chorea supplies an example, for, although in this affection the special alteration of the knee-jerks, to which Gordon, of Exeter, called attention, may be present, in which the limb remains suspended in mid-air too long in response to a blow on the patella tendon, the diagnosis has to be made without any such assistance from the reflexes in the majority of cases. The extensor of the response, and special alteration of the superficial reflexes to which Babinski called attention, are too infrequent to justify any reliance being placed on them.

The fact must not be lost sight of in this connection that the negative may be of little less value than the positive in some cases, and that, accordingly, there are instances when the fact that the reflexes are not affected in a case proves almost as helpful as if they were, for this serves to distinguish the malady from one in which alterations of the reflexes were to be expected.

5. The Part They Play in the Diagnosis of General Diseases.

The question that next arises is as to whether the reflexes give any assistance in diagnosis in realms outside those of neurology. There can be no doubt that there are many cases in which, in the absence of any known disease of the nervous system, the reflexes are altered in the course of some general disease or special affection of some other organ of the body.

It will be remembered that in an affection like diphtheria absent knee-jerks may give the first clue to the nature of a sore throat that ought to have been long since determined by bacteriological examination of secretion from the fauces. Similarly, absence of the knee-jerks may call attention to the possibility of glycosuria, which routine examination of the urine should have forestalled.

Some attempt has been made to derive direct advantage from alterations of the reflexes as in favor of one as opposed to another disease in which the nervous system plays no part, except that the toxins of the one malady have a more profound effect on the nerve centres, and occasions alterations of the reflexes in consequence, in a manner that does not obtain in the other disease. Thus, the knee-jerks have been found absent in a large proportion of cases of pneumonia due to the diplococcus or the diphtheria organism, while they are not affected in septic pneumonia and found exaggerated in tuberculous cases (Stanley Barnes).

The chief value, however, that attaches to these observations in the present state of our knowledge is that they prevent us from concluding that some organic condition, as, for instance, myelitis or meningitis, has of necessity developed because these alterations in the reflexes are determined. Those interested in the welfare of the patient are thus spared the anxiety that would be caused by the opinion that might have been expressed in ignorance of the fact that the alterations noted are compatible with transitory effects due to toxic conditions without any permanent organic change.

In conclusion, Mr. President, ladies and gentlemen, let me thank you most sincerely for the patient hearing you have given me. No one is more conscious of the shortcomings of this address than I am. I wish it had been possible for me to prove more worthy of the trust that has been placed in me, and the honor which that trust implies. I can only take comfort in the fact that I have spared no pains to make the address a success, so that any failure to do so cannot be ascribed to a lack of appreciation of the great responsibility which I have accepted, and of which I have been only too painfully conscious. One other consideration brings me comfort in my ordeal: that is, that I am in the midst of friends who will deal leniently with my shortcomings. In his letter of invitation your worthy secretary, Dr. Hacking, told me that I would meet many friends who would be ready to welcome me to Canada. I have, indeed, met with friends, and have been overwhelmed with kindness. Let me take this opportunity of thanking you all most cordially for the welcome you have so generously extended to me.

THE SURGICAL RIGHTS OF THE PEOPLE.*

By John C. Munro, M.D., Boston,
Surgeon-in-Chief, Carney Hospital.

In accepting the courteous invitation to address your Association to-day, I realize deeply the compliment that you bestow not only upon myself, but upon the great number of American surgeons that are your friends and neighbors. A political boundary divides your people from my people, but in our profession there is no dividing line, for the medical and surgical property of one people is, or ought to be, that of the other. The customs and the methods of education of the Canadian differ in minor details from those of my own countrymen, but there are grievances, slight wrongs, and evil tendencies that crop up equally in both our peoples, and it is to call your attention to and to enlist your sympathy in some of these that I venture to express the results of observation extending over a period of twenty years.

While listening some time ago to an interesting address by Prof. Muller of Munich, on the German system of insurance of the laboring classes against sickness and death, I was impressed by the fact that the insurance was established not as a charity, but because the poor have the right to be protected against the various accidents and illnesses incident to our complex modern life. At that time it occurred to me that against unnecessary suffering, disease and death the public, both rich and poor, has an equal right to be protected by means other than that of insurance. In other words, if modern surgery can lengthen life, can protect against malignancy, can nullify suffering better than can be accomplished by other therapeutic measures, the public has the right to know accurately when and to what extent this is possible.

---

*Address in Surgery, Canadian Medical Association, Ottawa, June 10th, 1908.

It is not assumed for an instant that protection and alleviation in the case of many diseases cannot be obtained by means that are not surgical. We have merely to witness the results of vaccination, serum inoculation in diphtheria, and a host of similar remedies. As a matter of fact, it is interesting to note that the public has practically asserted its right to be protected against smallpox, diphtheria, malaria, yellow fever and other well-known diseases.

During the extraordinary surgical advances that have been made in the last decade our profession has been so busily engrossed in grasping the new developments that come crowding one upon another that it has rather lost sight of the poor public and its right to a share in the general progress. We have been inclined to let the people discover for themselves the immense amount of time, money and suffering that can be saved to them, and yet we are in the position of placing before them a host of well-established facts on which we base our advice as regards surgical treatment. More and more have surgery and medicine grown to be scientific and accurate. To a greater and greater extent can surgeons promise definite results. The changes in technique and operative principles that are constantly taking place lead steadily to better results because they tend ever to greater simplicity.

Is it not a good time to stop and view ourselves from the standpoint of the lay public—a public that in the main is intelligent, progressive and full of common sense?

However much we may deplore the fact that surgery is necessary, that it may be an opprobium—which I doubt very much—we must be willing to admit that, given ideal conditions, enormous temporary and permanent benefit can in numerous instances be vouchsafed by operations, and by operations alone. Surgery has its own field. It readily yields to other and simpler therapeutic measures when satisfied that it itself is without avail. At the same time it is keenly alert to invade the vast field of internal medicine when the latter fails to accomplish the ideal; ready to retire at once if some new discovery demonstrates that disease can be conquered by means other than surgical. What surgeon is there who would not gladly throw down the knife if a serum or any simple remedy were discovered that would definitely cure malignant disease? Some such remedy is bound to come in the course of time; slowly, it may be, but none the less surely. In the meantime innumerable types of disease are safely and happily treated by the mechanics of surgery, and it ill becomes us as surgeons to belittle the aid that we can give, for the mere reason that at some future time surgery may become obsolete.

Every year I am told that we have attained the highest limit in technique. This is far from the truth, because hardly a week passes without a surgeon somewhere in the world demonstrating a discovery or reviving some long-forgotten fact that reduces mortality, shortens convalescence, or aids in the restoration of normal functions.

It should be made clear at the outset that the public must expect of surgeons not absolute efficiency, but a reasonable degree of it. Such a degree can be acquired by any surgeon who has aptitude, a love for constant self-improvement, and a readiness to make sacrifices to his ideals. Of this type there are many in your country as well as mine. The masters of surgery, on the other hand, are few in number. It is to them that we of the rank and file must look for the instruction and inspiration which should constitute a large and by no means unimportant part of their work. It is only a relatively small proportion of the people that can have the direct benefit of their skill. To their teachings the medical as well as the surgical practitioner must listen, and in the light of the accomplishments of the advanced surgical clinics of the world it is not an exaggeration to assert that diagnoses, especially of abdominal and cerebral diseases, are more accurately made by the surgeon or by his medical confrere who follows his own cases to the operating table than by the internist who limits his observations to laboratory, personal and post-mortem examinations. The failure of the public to realize this fact accounts in great measure for the many sometime curable diseases that are brought to the surgeon after they have reached the incurable stage. The co-operation of the internist and the surgeon in all cases potentially surgical is something that can be demanded consistently by the people. Each one is a healthy check on the other; their combined judgment is safest for the patient.

With the emergency operations and the problems suddenly forced upon the doctor far from surgical centres this paper has nothing to do. Every surgeon admires and respects the men who meet the difficult problems of this kind, alone, ingeniously and fearlessly. The history of medicine is full of heroes of this class, and no one has greater appreciation of their work than the active surgeon in the large city.

I would deal here rather with the question of elective major surgery as attempted in our large and small surgical centres by men without surgical skill or training, by amateurs, and by the nondescript commercial type of doctor that operates for the fee and not for the benefit of the patient.

The internist and the family doctor, assuming that he is a general practitioner, cannot keep pace with the constant advance made along surgical lines. It is physically impossible for him to keep in touch with the best surgical literature and progress. If, therefore, a patient comes for advice concerning a disease that theoretically or practically can be classed as surgical, the patient has a right to the opinion of a practical surgeon for or against intervention. This applies not only to the commoner diseases, like gall-stones, appendicitis, cancer, etc., but to the less common borderline diseases in which both medical and surgical treatment is of value. The internist, prejudiced at the start against surgery or slow to follow the best advances in the world's clinics, may presume to decide a question that is or ought to be purely surgical. Such a decision may be as much beyond his province as it would be were a surgeon to attempt to decide as to the nature of an anaemia without a blood examination. This breach of faith with the public—for it can hardly be called anything else—is in my experience one of the most common factors that leads eventually to incomplete operative success. The public, slow to grasp the full significance of such conditions, is, nevertheless, gradually awakening to its rights in this respect.

The remedy is simple. No doctor need be so narrow or prejudiced that he cannot seek counsel in doubtful cases. To ask for surgical advice does not imply any necessity for accepting its verdict. That lies with the patient. Let him be given the facts according to the best modern lights, and the decision will rest with him whether to accept an operative risk or not.

Worse than this is the hesitation, narrowness or ignorance—call it what you will—that allows the internist to deal with a surgical lesion until forced to advise surgery, not as a preventive or as a curative measure, but as a last resort. Every experienced surgeon will agree with me that with all his so-called boldness in operating he has never had the courage to assume the responsibilities endangering the lives of his patients that the indifferent or ignorant practitioner assumes at times in advising against surgical intervention or in withholding operative relief. The surgeon with his knife in the presence of appendicitis, gall-stones, cancer of the stomach or intestines, empyema and a host of similar diseases is the embodiment of conservatism when compared with the practitioner who elects to treat such diseases medically.

After a patient has decided upon operative treatment he has the right to demand, first of all, asepsis, proper anaesthesia and intelligent after-care. He should realize, however, that, although absolute asepsis is the ideal to which all surgeons aspire, practical asepsis alone can be guaranteed in the light of our knowledge at the present time. We should teach the public that the highest degree of asepsis is best attained by a permanent corps of surgical workers trained under responsible heads; that a properly equipped hospital with such trained assistants entails less risk to the patient than the haphazard equipment of the private house or the irresponsible regime of many of the private hospitals which are open indiscriminately to operators, each with his own methods of operative technique.

I think it can be safely said, indeed, that a morning's work at a private hospital, with its multifarious and changing authorities, is rarely carried through without many lapses in asepsis, for the most part harmless, but occasionally calamitous in result.

Breaks in asepsis are the result of some sin of omission or commission on the part of the operating staff, including the surgeon, his assistants and operation nurses. Too often is the blame for septic calamities ascribed to the sponges, the suture material or the dressings. That any one of these may be at fault is possible, but in the well-conducted operating room proper examinations and control of the material should prevent such accidents save in very rare instances. Too many times have I seen a sterile catgut blamed for the result of a slovenly, dirty surgeon or assistant. So long as surgery is an art and not a mechanical trade lapses in asepsis are occasionally bound to occur, even in the best clinics, in spite of all reasonable precautions. The important point for the surgeon, and for the public as well, is to recognize and make use of the means best fitted to reduce these chances to a minimum. We must all recognize that there is some risk attending any and every operation; a risk that often is so small that it may be practically disregarded.

Under the immeasurably diverse conditions of heritage, environment and physical and mental defects, it is out of the question to allow for every possible accident, and this fact the patient as well as the surgeon must recognize where an operation is undertaken. Provided the surgeon uses precautions that are reasonable in the light of modern scientific knowledge, he can be assured that he has done all that should be expected of him. The patient, on his side, must be willing to take certain chances provided the result sought by operation is going to lessen the sufferings and dangers that are inherent in the existing lesion or disease.

The public should realize that the dangers, immediate and remote, from anaesthesia are very small. Such dangers do exist, however, and it is the surgeon's duty to minimize them in every possible way. A skilled anaesthetist, preferably a permanent member of the surgical corps, will cause far less damage than the student or the friendly family practitioner who etherizes occasionally, and who is more interested in the operation than in giving the anaesthetic. In my own experience the worst and most dangerous etherizers are the unskilled pupil house officers. To the credit of certain individuals of this class, however, it must be said that after a month's training some of them develop into first-class anaesthetists, generally at about the time they are ready to graduate to a higher grade. These show their ability early and exhibit, as it were, an inborn talent in this line; others never learn to be satisfactory etherizers, no matter what or how long their experience.

Another class that rivals the student in dangerous etherizing is the graduate with long experience in general practice. He rarely gives ether safely or in a way that aids the operator. His experience has been won mainly at the bedside of the lying-in patient, and in anaesthetizing a patient for a major surgical operation he applies methods similar to those which he uses in his obstetrical work.

An unskilled etherizer will make certain of the difficult operations impossible; he will prolong beyond safety an operation that should be short, and he will increase in any case the chances of a post-operative pneumonia. These facts are not generally known by the laity, but that does not warrant neglect on the surgeon's part in this particular. The public has just as much right to demand a skilled anaesthetist as to demand a skilled surgeon.

Much the same could be said of the unskilled assistant, the ever-changing house surgeon, and the general practitioner who assists in major operations at rare intervals. It is difficult for the latter to realize the essential points in aseptic technique; not being accustomed to the ways of the surgeon, he modestly hesitates to give what assistance he would like to give, and often, being ignorant of the consecutive steps of an operation, he delays and hampers the surgeon to a degree that he little realizes. I believe that every surgeon who has had much experience in this line will confess that in not a few cases he has been obliged to substitute a partial or a less difficult operation because he was unwilling to expose his patient to the added risks that would come with the unskilled helper.

As soon as the public appreciates that the after-care of major surgical cases, especially of those in which the abdomen has been opened, is just as important as the operation itself, it will insist that the immediate convalescence be guided by the surgeon himself or his capable assistant. To operate from choice in a serious case far away in the country, placing the responsibility of the after-care upon the family doctor, who at the same time is in charge of patients with all types of disease, is unjust to the doctor and to the patient, and it leaves a loophole for divided responsibility in case of calamity. ,

No surgeon can safely outline the treatment of any abdominal case if he allows for the innumerable contingencies that he knows to be possible. If every patient passed through the stage of convalescence in a routine way the problem would be easy, but, as a matter of fact, such is far from the truth.

Another demand that the public can and should insist upon with the surgeon that is attached to a public hospital is that any and every major operation, especially if it involves the abdomen, should be performed by the surgeon himself or under his direct supervision. He is appointed to the hospital staff presumably for his special surgical fitness. His position presupposes long training in anatomy, pathology and assistance at surgical operations. The public seeks the services of a hospital because of the skill of its staff, and it has the right to demand that the full responsibility of all major operations should be taken directly by the staff. In order to attract students, to become popular, or to shirk labor, the surgeons of many hospitals delegate more or less operative work to immature and irresponsible house pupils; because of this the public suffers. Many times have I seen a young, inexperienced house surgeon struggling with some difficult problem at the operating table, a problem that has arisen suddenly and unexpectedly, and I have wondered if the complacent surgeon who has deserted his post would be willing to subject one of his own family to this amateur surgery. Much in the way of minor surgery can be properly delegated to one's assistants, but to place the responsibility that attends major operations upon a young surgeon with the experience of a few months is fundamentally wrong, while occasionally it is criminal.

Granting the fact that a hospital staff is or should be selected because of its capability, both collectively and individually, it behoves those of us who are responsible for the selection of our co-workers to be both catholic and discriminating in our choosings. We must acknowledge that it is through the work and enthusiasm of the individual that surgical progress is maintained, and if we are to exact the respect of the public for our hospitals each individual member of the staff must in some one or more respects live up to the highest surgical standard, while at the same time his general qualifications are those of the broad general surgeon. This significance of the individual was aptly expressed as follows at a dinner recently given to Cardinal Logue: "The potency of the individual is greater and nobler than the influence of class, or organization, or even institution." To no type of man does this apply better than to the surgeon of our large hospital. How frequently do we see the progress and advancement of the entire institution dependent on the activity, breadth and scientific enthusiasm of a few, often against or in spite of the narrow opposition of the many.

To some extent the criticism as regards the house pupil pertains to the amateur surgeon who operates now and then for the excitement or for the fee, without pretending to be reasonably skilled in technique or reasonably posted in surgical progress. The smaller hospitals that are luxuriantly cropping up throughout the country are in this respect not only capable of doing much harm, but they are actually guilty thereof. The large and promiscuous staffs in control of these hospitals always include a few ambitious men eager to attempt surgery beyond their ability. The term of service of the staff constantly shifting, allows but a limited experience to any one member, and divides the interest and responsibility of the staff as a whole. It would be far better, as I pointed out some years ago, if such a hospital should select two of its younger members to train themselves for the necessary surgical work by acquiring thorough anatomical, pathological and technical foundations, and should compel them to keep in line with modern surgical advance year in and year out. Two well-trained men of this sort should be able to take proper care of the surgery of a large district, and take care of it well, whereas at present much of the work is badly done by innumerable half-trained general practitioners, who, while doing the best that they can, are not giving the public what it has the right to demand.

This would also do away to a great extent with the present system of calling upon the consulting surgeon from the large centres, who only too often operates hurriedly and on insufficient examination and knowledge of the patient, because he relies upon the data furnished by the family physician. In other words, too many major operations are done under these circumstances without satisfactory study of the patient and his disease, and the after-care is delegated to practitioners without the surgical training and experience that the public can justly demand. This system trains the consulting surgeon into hasty and snap diagnoses, and he necessarily gambles now and then on the chances that he can pull out of a difficult situation if he happens to be caught. But what of the patient under these circumstances? He rarely loses his life, to be sure, but I believe that any experienced surgeon will agree with me that at times an operation is not complete or satisfactory, or that a secondary operation is required later, because of the insufficient data, the inadequate assistance, or the imperfect operating-room equipment.

That the small hospital is invaluable to the town in which it is situated no one can deny, but, under the conditions under which most of these hospitals are conducted at the present time, that such an institution should undertake, except in case of necessity, the serious surgical problems, I believe to be ill-judged at least. It is only a question of time before surgeons will demand that no doctor assume the responsibilities of major surgery without required special courses of training and apprenticeship. If surgeons do not demand it the public will.

Furthermore, a patient who supports himself and his family by his daily wage should insist that he be kept in the hospital for as short a time as possible consistent with good surgery. He should not be allowed to lie around the ward waiting for the surgeon, engrossed in outside affairs or indifferent to his responsibilities, to make up his mind to operate. Neither should he be kept for an undue length of time for the purpose of teaching students. In the large clinics a decision for or against operation can be made within forty-eight hours in most cases. The necessity imposed upon the surgeon of earning his living away from his charity clinic is responsible for much of this form of neglect, and the blame, therefore, really rests on the public itself, badly educated in such matters and encouraged by an indifferent profession.

Could our hospital trustees but see the wisdom of encouraging the surgeon to earn his living in the same building in which he devotes so much time to the pauper sick, both classes of patients would be benefited. This fact is so obvious to anyone who has carefully considered the subject that it is unnecessary to enlarge upon it here.

The public has certain rights in the question of surgical fees. The surgeon has equal rights, but he seldom obtains them. To take up the abuse of medical charity would lead me too far from my subject; that such an abuse exists, especially in the eastern part of the States, is too flagrantly evident to need any confirmation here. To some extent the existence of this abuse is responsible for the overcharges to which surgeons are occasionally driven. All patients except paupers and some wage-earners should be compelled to pay a fee for medical and surgical care commensurate with their earning capacity, just as they are obliged to pay for their provisions, their luxuries or their dissipations. The wealthy should pay liberally for major operations; they should not be robbed. The self-respecting wage-earner, whether on daily wages, a salary or in independent business should not be treated as a pauper. He should be compelled to pay some fee in proportion to his earnings, the number dependent on his income, etc. The public has abused over and over again the medical charity that flourishes to such a degree in our large cities. May it not be because of this abuse that the struggling surgeon is guilty at times of squeezing all that he can from his wealthy client? Our practices need reforming without doubt, but the abuse in this respect is infinitely less than that practised by the public which is competent to pay.

That surgeons divide fees with the family doctor bringing them surgical cases is a well-recognized evil. Fortunately it exists to a much smaller extent in the East than in the West. That it is fundamentally wrong and pernicious goes without saying. It is based on commercialism alone. As soon as the public realizes that it is deliberately sold by its family doctor—in whom it has full confidence—to the surgeon that allows the largest graft, and that it is not sent to the surgeon best equipped for taking charge of the case, the public itself will stop the practice at once and emphatically. It seems inconsistent with American character that a patient should be bartered voluntarily.

To enter upon the relation of animal experimentation as applied to the development of surgery is very tempting. Its bearing on the principles of surgery and on surgical technique is of tremendous import, so far as the great mass of the people is concerned. The latter has learned to trust in the unselfish honesty of the medical profession, and the responsibility is far more serious than the anti-vivisectionists can realize if humane surgical advance is checked by the indiscriminating and narrow bigotry of ignorant partisans. I believe that if a deliberate and thoughtful expression of views of the practical surgeons of the world were taken to-day an overwhelming majority would gratefully acknowledge its obligations to animal experimentation, as instanced in the daily relief of suffering and prevention of disease. It is almost pathetically comical that we should be confronted time and again by the ignorant and probably thoughtless views of two defunct and famous surgeons upon this subject. Both men lived at the very dawn of modern scientific surgery; neither was young enough to grasp the significance of the new surgical discoveries, while each one had been a too-dominating power in certain narrow lines of surgical advance to be willing to accept the broader teachings of others. One directed his genius to mechanical problems; the other demonstrated advancement by means of human experimentation, all of which had to be worked out at a later period by laborious scientific research. The thoughtless and possibly hasty views of these men have been hurled at the thousands of modern surgeons by the opponents of animal experimentation, but I am confident that if Bigelow and Tait were alive to-day their dominating geniuses and grasp of the truth would enrol them as most enthusiastic and powerful allies in the struggle against the anti-vivisectionists. The layman, as a potential surgical patient, is more keenly interested in this controversy than he realizes. When the surgical thunderbolt strikes him or his family he wants and demands as his right the use of every nicety that will diminish risk and lead to recovery. I know, and you know as practical surgeons, that we daily use the results of laboratory research, and that if we were deprived of all that has been handed down to us as a result of animal experimentation our surgery would lapse back to a degree frightful to contemplate. This is the side that the layman must seriously consider when he is urged to oppose the profession that has always worked and struggled on behalf of suffering mankind, and that will fight for the principle of animal experimentation because it knows it is just, humane and merciful.

There is one more protest that may be made in behalf of the public. We hear much loose talk about the direful nervous shock that follows operation, and the public is well trained to expect a long and tedious convalescence on that score. With certain ill-balanced, badly-trained people this may be the case, especially if the patients are cared for by over-fussy or unscrupulous physicians, but as a general rule in my experience the post-operative effects are grossly exaggerated. Most patients can be trained out of such calamities as easily as they can be trained into them. With all the traumatic neuroses that have cropped up since suits for personal damages have become so frequent, it is incumbent on our profession to avoid augmenting this class of patients by ill-timed and ill-judged encouragement. In my own experience the patients that suffer most from post-operative neuroses are those that were allowed to become septic by culpable delay in submitting to operation. The bad result can be traced to the sepsis and not to the operation. The contrast is so marked in what might be termed control operations in non-septic cases that one who has observed it readily recognizes the difference. When we consider that a generation ago most operations and accidents were serious because of the septic complications it is not difficult to understand why the laity at the present time has such a dread of anything associated with surgery. It can be stated conservatively that the lay public is about a generation behind in its realization of the advances accomplished in the science and art of surgery. I believe that I am not unduly severe if I accuse our medical brethren of being about five years behind.

Criticism and censure of existing conditions is not a difficult task. Of one, however, who condemns so freely you have the right to demand some suggestions for reform or reconstruction. In a short general address like this I can enter upon this phase only to a superficial extent.

Fundamentally the great and important factor in remedying many of the evils to which I have called attention is a higher uniform standard of general and medical education. This in the States is being pushed forward most ably and energetically by the Council on Medical Education of the American Medical Association, and we all owe our most loyal fealty to its endeavors. In addition to this general groundwork, I believe that so far as the making of surgeons is concerned, who shall be entitled to stand before the public as capable of dealing with the larger problems of surgery, much can be done even at the present time in the way of special training and special licensing. With regard to the latter, it may be best to adopt some form of approval by a recognized examining board somewhat similar to that which obtains in England. Thus, a candidate for the position of surgeonship in a responsible hospital or in a rural community would be obliged to prove his fitness for the work, his knowledge of anatomy, pathology and the science and technique of surgery.

A reform in the construction of our hospital staffs I believe to be equally important. Some such system as that in vogue in Germany should be adopted by our hospitals in the larger cities where there is opportunity for teaching. As constituted at present many of our public hospitals are overweighted by cumbersome surgical staffs that could easily be reduced to a third or a sixth of their present number. A chief of staff should be placed in full control of fifty to one hundred beds. If in charge of a larger number his assistants or colleagues should be as capable of assuming full control as the chief himself. The latter should be allowed very great power in the selection of his assistants from among those who have demonstrated their fitness and ability while in subordinate positions. Thus permanent or temporary vacancies would be properly filled, and responsible positions in distant hospitals would be open as prizes to tried, capable candidates. This would do away with the present system of graded rank, which, however efficient it may be in the army or in the commercial world, is poorly adapted to the profession of surgery and to surgical hospitals. Because a surgeon has performed his work regularly and perfunctorily while in a subordinate position, without advancing himself or his art, is no reason that he should be elevated to the head of a division when a vacancy occurs. As a result of this misapplication of civil service rules one such chief of service can and will block the progress of his division in a way little realized by the general public, or even by the practising physician. Let every man aspiring to become a chief of staff make good; do not hand him a gift with so great responsibilities just because he happens to be older than his colleagues. Have we not all seen certain surgeons, originally appointed by political favor, nearly paralyze the active service of a large hospital when placed in a position of responsibility? Has such a man the right to trade on his assumed ability at the expense of a public which cannot easily comprehend the exact state of affairs?

The same principle which applies to the visiting staff of a hospital applies to the student assistants. As I have indicated elsewhere, uniformity and permanency in the operating and ward staff is of the utmost importance in obtaining uniform and satisfactory surgical results. The routine, inexpert work in the wards, the laboratory and the operating room should be done by students, delegated by the schools and accepted without competitive examinations, because such work should be a part of the student's curriculum. For more responsible positions the selection should be by a process of elimination, dependent on the demonstrated ability and aptitude of the student assistants. The highest positions should be allotted for a term of years to selected candidates who are planning to enter upon a surgical career. These should be salaried, and they should be encouraged or compelled to undertake original work. When at last these men are graduated from their assistantships they will be in a position to offer themselves as candidates for junior positions on the staff, or they may emigrate to other cities or towns, where they will be entitled to undertake the surgery of their district, building up a surgical nucleus that is capable of developing indefinitely, varying only with the ability of the individual surgeon.

To elaborate this scheme is unnecessary. It is essentially that which exists in Germany. When we consider the splendid surgery that the Americans have shown themselves capable of developing in the face of our clumsy and restraining systems, one grows enthusiastic at the possibilities that lie before us, provided we could develop the art along better, safer and more liberal lines.

In dealing with the private hospital problem I can easily be misinterpreted, but I believe that much can be accomplished by which the public will be dealt with more fairly. It seems only right that the well-to-do patient should be treated as carefully and as efficiently as the pauper, but such is far from the fact in some of our large centres. Many of our private hospitals are run as money-making schemes. It is a great temptation to keep a patient in the hospital longer than necessary. It is easy to encourage the neurasthenic to waste weeks in an institution when we know that he or she would be far better off in the woods or at work. Without responsible residents in these hospitals emergencies endangering the life of the patient arise occasionally that cannot be dealt with properly. The same holds true, as I remarked earlier, with regard to the operating room equipment. If we are to have private hospitals the administration can and should be brought as near to that which exists in our best public hospitals as is possible, and until that is attained we are not dealing quite squarely with our patients, from whom we derive our incomes.

To kill the growing tendency towards a division of fees, it is necessary to keep the public informed as to the facts. Whether this should be done through our local or our national societies is not yet clear, but I believe that it is best undertaken by the larger body of men. A curious and annoying type of graft that is not infrequently worked upon the surgeon is that in which the family physician, who presumably knows the financial status of his patient, makes one price for operation to the patient and another (much smaller) price to the surgeon. To expose this it is necessary that the surgeon have his business dealings directly with the patient, thereby losing, of course, all future work that might otherwise come to him from the family doctor whom he has exposed. The public has a right to know how much it pays for surgical care and to whom the amount is paid. The moment we begin to juggle with it in this respect we lose the right to pose as a profession the first object of which is not to make money.

In conclusion, I would not have you infer that there is no other side to surgery than that of criticism and fault-finding. No profession is without flaws. Every profession reaches a higher plane with each decade, and it is mainly by the elimination of the petty obstacles that our profession is destined to attain a level that can never be reached by others.

As a matter of fact, the public can feel that, taking American surgery as a whole, both that done by the masters and that done by the rank and file scattered over the length and breadth of this continent, there is no surgery in the world more intelligent, more skillful, and more considerate of the rights and feelings of the patient. The rate of advance is almost phenomenal. We in the States are wont to boast of our commercial progress, which is apparent to everybody. Few beyond those working in hospitals, laboratories and medical libraries realize that the advance in our profession is parallel with that in our commerce. The advance in the one, however, is for the most part financial and scientific as applied to finance, while the advance in the other is scientific, humane, educational and life-saving.

A significant quality that belongs to our profession is the generosity of the surgeons of one locality towards those of another in freely giving and receiving the good things that spring up in our art. It is a most refreshing sign of broad culture, and it does much to destroy the petty jealousies that are a heritage of past generations.

More and more do we see the internist and the surgeon working side by side; more and more do they appeal to the authority of the laboratory, and, finally, with all the petty bickerings and inconsistencies that are to some extent inevitable in all professions, any one of us when his name is called in the ranks of the American surgeon should be proud to answer "ad sum."

IMMUNITY TO DISEASE.

By Alfred H. Caulfeild, M.D., Toronto.

Assistant Pathologist in charge of the Serological Section of the Pathological Department of Toronto General Hospital.

The advances that have been made by investigations and research on immunity to disease have been so great of late years that anyone who has not followed the work closely can hardly realize the points of practical value that have accrued from a diagnostic, prognostic, and prophylactic standpoint. Therapeutic procedures more rapidly work their way from scientific publications into the general medical literature, such as Wright's vaccine inoculation in bacterial diseases; but different conceptions of clinical conditions, resulting from laboratory investigations, and improved methods of diagnosis and prognosis take a longer time to become disseminated.

The immense amount of work that has been accomplished on "Immunity" by men of different nationality and ideas has given rise to such a confusing array of terms that many who attempt for the first time to review the recent work find themselves confused by the technical nomenclature. It is with the hope of being able to present a different conception of infectious and contagious diseases that I am attempting, by omitting technical considerations, to give some of the main and established conclusions resulting from work lately done on immunity.

For some time the chief workers in Germany (Ehrlich and his school) held that the serum of the blood was the essential factor in immunity, while other workers, especially Metchnikoff and his pupils in the Pasteur Institute, attributed to the leucocytes and their phagocytic activity the degree of resistance. In contrast Sir A. E. Wright showed that the serum was the cause of the induced phagocytosis, and, to Wright, I think, is due the everlasting gratitude of the profession, if only for giving the great stimulus that he has by the introduction of specific vaccines as a therapeutic means of combatting bacterial diseases.

The theory that Ehrlich built up to explain his experimental results has served as a basis for those working along serological lines, and, while it has the disadvantage of being extremely hypothetical, it has given conceptions upon which much valuable work has been done. Although the details have not been accepted, the main theory has been the explanation for most of the practical procedures; and as such, I take it, has served the best purpose a theory can. For the extent of this article one might state Ehrlich's side claim theory as follows:

Inoculation or infection of a living organism is responded to by the production (on the part of the inoculated organism) of a specific antibody, which is capable of combining with and destroying the infecting body. This beneficial action on the part of the specific antibody can only obtain through the co-operation, so to speak, of a third constituent which is always found in normal serum. This quantity has been called complement (or alexin). These chemical possibilities are usually depicted diagrammatically, and as such give only in part a true conception of what we suppose takes place.

The response body (called antibody amboceptor, etc.) is specific to the infecting agent, that is, each bacillus, for example, is capable of stimulating the inoculated organism to produce an antibody of definite chemical construction which will differ chemically from an antibody produced by another bacillus. These antibodies have a fairly stabile construction. They withstand heat at 56 degrees C. for half an hour.

The third quantity, called complement, is something that is found in all normal sera. In contrast to the specific antibody, it is very easily broken up, being destroyed by five minutes' exposure to 60 degrees C.; and to be preserved for some days must be kept frozen. Beyond the fact that there are possibly many similar bodies acting as complement (or to put it in another fashion, that complement is a multiform body) we know very little. This, however, is certain. For the efficient action of the specific antibody complement must be available. The specific antibody is supposed to join itself to its causative agent, and to this new combination complement becomes bound.

Pfeiffer's early experiments with the B. colon illustrate this. He inoculated an animal with the B. colon and demonstrated this animal's serum in high dilutions was capable of destroying the bacillus in contrast to the serum of a similar uninoculated animal. Further, he showed that heating the immune serum (*i.e.*, that from the inoculated animal) to 56 degrees C. for half an hour destroyed its bactericidal power, but that on the addition to this inactive heated serum of dilute fresh normal serum (which of itself was not capable of bacterioloysis) this power was restored. The explanation lay, of course, in Ehrlich's side chain theory. The immune serum contained, besides the specific antibodies resulting from the inoculation of the B. colon, sufficient complement for the efficient action of the specific antibodies when brought in contact with the B. colon. Heating the immune serum destroyed the complement, so that this had to be added in the form of fresh normal serum before the specific antibody could effect the destruction of the bacillus by the proper chemical union. These different actions can be summarized thus:

1. Immune serum (fresh)—bactericidal power present.
2. Immune serum (heated)—bactericidal power lost.
3. Fresh dilute normal serum—no bactericidal power.
4. Addition of 3 to 2—bactericidal power regained.

This reaction is definite and takes place according to definite chemical laws. Although we cannot in any way define the complex chemical composition of these bodies, or show wherein lie their definite chemical affinities, we can draw conclusions from the phenomena they are capable of presenting.

The following experiment will illustrate this:

Inoculation of animal A. with the B. colon produces an antibody specific for the B. colon only.

Inoculation of animal B. with the B. typhosus produces an antibody for the B. typhosus only.

(Heated) immune serum (from A.) complement (fresh dilute nor. serum) will have no effect upon the B. typhosus, but will destroy the B. colon.

(Heated) immune serum (from B.) complement (fresh dilute nor. serum) will have no effect upon the B. colon, but will destroy the B. typhosus. That is, unless the antibody combines with the bacillus, the addition of complement makes no difference, and the antibody will only combine with the bacillus (or micro-organism) which stimulated its production.

To lead to an explanation of a reaction (called complement fixation or deviation), now being extensively employed for diagnosis, let me state that the body does not respond to bacterial inoculation or infections only, but to all foreign proteins. The term usually employed to designate such inoculated proteins is antigin. Amongst the different antigins used for experimental purposes are bacteria of all kinds, egg white, blood corpuscles, the mucous walls of stomach and intestines, etc.

Inoculation of an animal with the blood corpuscles of another animal stimulates (in the inoculated animal) the production of (haemolytic) antibodies (or amboceptors, as they are here more frequently termed). With an immune serum so obtained, the following reaction can be made:

Put in a test tube appropriate amounts of

1. Blood corpuscles of animal A.
2. Heated immune serum of animal B. (which has previously been inoculated with corpuscles of animal A.).
3. Dilute fresh normal serum.

Incubate the test tube at body temperature and the corpuscles will become haemolised, that is, the corpuscles will be broken up and give their haemaglobin to the fluid. The reason is that the specific amboceptors in the immune serum enter into chemical union with the corpuscles, and this combination binds complement, which results in the destruction of the corpuscles. This reaction is given by dilution of the immune serum as high as 1-800 to 1-1,000 or more, and is specific. For example, corpuscles from another species of animal could be substituted and no haemolysis would result.

If instead of fresh dilute normal serum, physiological saline solution were substituted, no further combination than that of amboceptor and antigen could take place, and the corpuscles would sediment to the bottom of the test tube, leaving the supernatant fluid perfectly clear. Thus we have a color reaction taking place in the presence of complement, which can be used as a method for the detection of that substance. This is the underlying principle of the reaction known as complement deviation or fixation. It is used as a means of diagnosis in syphilis, pertussis, typhoid fever, etc.

For example, this reaction in the diagnosis of syphilis obtains in the following fashion: Since it is impossible to get a culture of the organism causing syphilis, one must make an extract of the organs of a positive case. It has been found that extracts from the liver and spleen of a syphilitic foetus best serve the purpose. This gives us a solution containing those substances, for which the specific antibodies, resulting from an infection with syphilis, have their specific chemical affinity. In this way we have a method of detecting the presence of syphilitic antibodies in the serum of anyone.

Thus—place in a test tube appropriate amounts of

1. Syphilitic extract.
2. Heated immune serum of suspected case.
3. Fresh dilute normal serum, and incubate at body temperature. If the case is a syphilitic, there will be in his or her serum syphilitic antibodies, which will, with the syphilitic extract, enter into that definite chemical union of antibody and antigin which, as above explained, binds complement always. If the case is not a syphilitic complement will remain free.

To detect whether or not complement remains free in the test tube it is only necessary to add both blood corpuscles and their heated haemolytic sera and incubate at body temperature. Two results or end reactions are possible:

(*a*) If complement was bound, no haemolysis can result, the corpuscles, sediment and the supernatant fluid remains clear. The diagnosis is syphilis absolutely.

(*b*) If complement was free, haemolysis takes place, the corpuscles disintegrate and the fluid takes on a red color due to the liberated hemaglobin. The diagnosis is negative for syphilis.

In syphilis this reaction is obtained in primary, secondary and tertiary stages, as well as in parasyphilis. Wassermann, for example, has reported in 15 cases of tabes or suspicious tabes, 12 of which gave a positive reaction, denoting syphilitic infection. The method is a valuable control in the treatment of those cases which take mercury with difficulty. Whether it is an absolute diagnosis of cure it is, perhaps, too early to state. This much, however, seems rational. If, after a course of treatment, the patient still gives reaction, showing that his serum contains syphilitic antibodies, one would be justified in concluding that the treatment should be continued.

The method of complement fixation can, of course, be applied to the diagnosis of other infections, such as pertussis, typhoid fever, gonorrhoeal arthritis, etc. Wassermann, Berlin, has a staff of 7—10 men actively engaged in this work.

To refer again to Sir A. E. Wright's work on opsonins. In inoculation with specific vaccines Wright and all of us who are of his school assume that the opsonic indices represent a parallel to the rise and fall of the patient's total resistance. To what extent this is always true it is difficult to say, but several articles lately published show evidence that the opsonic theory is perhaps not in opposition to Ehrlich's side chain theory of the stimulation bodies (amboceptors) and complement fixation. From this standpoint I have shown that the diagnosis of tuberculosis and gonorrhoeal arthritis can be made by taking the phagocytic index of the activated serum. For example, if a patient's heated serum shows a specific phagocytic index, which is increased by the addition of complement, it appears that the diagnosis can be made.

When or in what manner the theories of the different reactions now recognized as sound will be harmonized it is difficult to state, but many of the connecting links between them will probably soon be demonstrated. Then the diagnosis made by the detection of specific amboceptors, by the varying phagocytic indices, by hypersensitive reaction, (calmette for tuberculosis), and the prophylactic and therapeutic use of both vaccines and sera, will take on a more rational appearance from our fuller conception of infectious diseases. There are so many different procedures, each resting on its own theory and clinical results (which is more conclusive than experimental data), and so many that are as yet not fully supported that it is difficult to write only of the former.

However, there seems to be hope that most of the diseases regarded as infectious in origin must yield still a little more to the methods of investigation that we have at our disposal. Accurate methods of obtaining blood cultures, opsonic and complement deviation technique should be mentioned among these.

From what I have given in this brief fashion one might conclude the technique to be rather simple. The difficulty lies in avoiding possible errors. Especially is this the case in the methods of complement deviation where every extract and serum must be standardized and controlled. Further, the reaction is a qualitative one, and consequently the solutions must be used in varying strengths.

In conclusion, may I state that we need for this work a considerable number of syphilitic foetuses. The extract made from these lasts only a short time, and consequently considerable difficulty is experienced in maintaining our stock supply. If such cases of congenital syphilis occur in the practice of any who may take this journal we would take it as a favor if we could be informed.

THE TREATMENT OF DIFFUSE SUPPURATIVE PERITONITIS WITHOUT DRAINAGE.*

By C. F. Moore, M.D., Toronto.

Mr. President and Gentlemen:—

In dealing with this subject, I wish to contrast the various well-known methods, as outlined by their respective exponents, and see by deduction, if one of them might not offer a better prospect for our patients, and that prospect, perchance, may be a reasonable plea for the elimination of drainage.

From a statistical point of view, all the methods give very good results, but statistics are not to be relied upon wholly or without question. One case, for instance, may be of extremely malignant infection, and die within a few hours after operation; another, not so virulent, operated upon by a different method, is followed by death in forty-eight hours or thereabouts; then a third, of very mild infection, will recover after another form of procedure. Such cases prove nothing, for, were the order of operations reversed and the time elapsed after the onset of the attack were within a favorable period, the results might have been more satisfactory.

I wish to speak of three methods, viz.: Drainage alone, lavage and drainage, and lavage followed by closure without drainage; but before doing so permit me to give a short account of the physiology of peritoneal absorption, as a proper understanding of this function is essential to intelligent treatment.

From physiological research it has been demonstrated that the power of the peritoneum for absorption is equal to that for secretion; that the lymphatic spaces are principally confined to the diaphragmatic region, and that there is a normal flow of lymph toward the diaphragm that is largely uninfluenced by gravity. Also that colored particles in fluid, experimentally introduced into the peritoneal cavity, are taken up first into the pits in the diaphragmatic zone, and then into the lymph spaces by means of the phagocytes. When peritonitis develops, an army of phagocytes, depending upon the virulence of the infection and the time elapsed, is poured into the peritoneal cavity, and provided the endothelium is uninjured, bacteria and other foreign elements can be, within certain limits, disposed of by the lymphatic route in the region of the diaphragm. When, however, the endothelium is destroyed or injured, the lymph spaces are exposed, and thus absorption of a fatal degree may ensue with marvellous rapidity, but this is not of invariable occurrence, as nature throws out a deposit of lymph at the site of injury that limits the degree of absorption into the lymphatic current, and at the same time prevents further egress of bacteria from the lumen of the intestine. In cases of extremely severe infection, usually streptococcic, death takes place from violently rapid absorption, frequently leaving no visible signs, as the infection is so virulent that time is not sufficiently long for the protective lymph deposit to take place, and the phagocytes poured out are neither sufficiently numerous nor powerful to successfully cope with the infective micro-organisms.

---

* Read before the Ontario Medical Association at Hamilton, May 28th, 1908.

The results of the entrance of bacteria into the peritoneal cavity depend upon—their virulence and power to damage the endothelium and thus gain entrance into the circulation; upon the power of the individual to furnish a competent protective lymph-deposit; upon the stimulating action of the body-fluids; and upon the ability of the phagocytes to deal with the organisms.

The absorptive power of the peritoneum for fluids is so great that an animal will take up from 3 per cent. to 8 per cent. of its body-weight in an hour, or an amount equal to its entire weight in twenty-four hours. Poisonous substances injected into the peritoneal sac will act more quickly than when introduced into the intestinal canal. It has also been shown that, while normal peristalsis does not hasten this absorption, an increased peristalsis does, and a decrease will markedly delay it. Bacterial irritation, up to the point of hyperaemia, will also delay it, and thus the influence of the phagocytes to destroy the micro-organisms is enhanced.

The power of the peritoneum for protection is limited to conditions in which the bacteria are neither too numerous nor too virulent. When this limit of safety is passed, however, this absorptive property greatly increases the danger, as peritoneal exudates form an excellent culture-medium, in which bacteria can increase in a short time with great rapidity. Furthermore, this great absorptive ability may so load the blood with bacteria and their toxins that death will ensue very quickly. This power for absorption, and the ability of the phagocytes to deal with the micro-organisms are factors upon which we must depend for safety in our treatment of infection of the peritoneum, and the care and thought we give them determine, in some measure at least, our success. Rapid operating, with extreme care not to injure nature's protective lymph-deposit, free dilution of the infective fluid, and placing the patient in such position to cause this fluid to gravitate from the diaphragmatic region to parts where absorption is less rapid, are imperative.

The object of opening the peritoneal cavity in a case of peritonitis is to remove the products of inflammation, and the escaped contents of hollow viscera; to deal intelligently with the source of infection; to relieve over-distended intestine; the cleansing, as far as possible, of the peritoneum; and then, the final step in the operation is the question—"To drain or not to drain."

There is an old adage, "When in doubt, drain," but then this factor of doubt is, after all, purely a personal one, and sometimes not based upon any strong convictions, but upon the following of routine methods, and not thinking of the physiology of peritoneal absorption, nor of the power of the phagocytes; or it may be decided by a prejudice in favor of some method that has given fairly good results. There is no universally approved opinion upon the subject of drainage, as is evidenced by the different lines followed by well-known surgeons of, perhaps, equal ability. For instance, Dr. John B. Murphy, of Chicago, at the British Medical Association meeting, in speaking on Mr. Bond's paper, said: "Get in quickly, but get out more quickly. He rapidly and carefully removes or repairs the organ from which infection emanates, inserts a drainage tube in the lower angle of the incision, then, after the patient has been transferred to bed and sufficiently recovered from the anaesthetic to be placed in Fowler's position, he resorts to the continuous slow instillation into the rectum of normal salt solution, by means of a reservoir placed not higher than eighteen inches above the pelvis, interrupting the flow only if the pulse becomes very full, or the breathing difficult. Murphy*, as you see, does not flush the peritoneal cavity. Mr. Moynihan, of Leeds, Eng., writes: "My own practice in these cases is to ensure, as far as possible, cleansing by free lavage, free drainage, and, if need be, emptying of the intestine, paralyzed by over-distension, by enterotomy or enterostomy." This surgeon favors free lavage, as well as free drainage. Dr. Joseph A. Blake, of New York, writes: "I was formerly a warm advocate of abundant drainage, later I became convinced of the utter impossibility of draining every part of the peritoneal cavity, for it was evident that the drains were soon isolated by adhesions, so I next confined myself to drainage of the field of operation, and then, perceiving that the other similarly-affected regions of the peritoneum took care of themselves, I omitted drainage entirely, employing it only, however, where the presence of necrotic tissue or hemorrhage demanded it."

So far as I know none of these surgeons gives the percentage of recoveries, yet I presume their results must be satisfactory to them or they would adopt other measures. I am informed that Murphy made a statement that he had but one death in twenty-three cases. If this be correct it is certainly a marvellous record. Hotchkiss, of New York, gives five deaths in forty-three consecutive cases operated upon by him without drainage. In *Annals of Surgery*, February, 1904, page 282, this writer also gives an account of a very interesting case of contusion of the abdomen, with rupture of the small intestine and escape of contents, that was operated upon in Roosevelt Hospital. The laceration was through all the coats of the intestine, and involved nearly one-half of the circumference from the mesentery. The rent was securely sutured, the peritoneal cavity thoroughly flushed, and the abdominal wall closed without a drain. The recovery was uneventful, and the patient discharged well on the twenty-second day from operation. This is a very strong case and deserves consideration.

Dr. J. F. W. Ross, in his last thirty cases, had twenty recoveries without drainage. Dr. F. W. Marlow gives, I think, eight cases without a death. I shall now mention six cases that occurred in my own work, the results of which have caused me serious thought, and the outcome is this paper. The first five were treated by drainage alone, followed by Fowler's position, and I regret to say that all died within a period of forty-eight hours. The sixth I treated as I did the previous ones, but, in addition, I resorted to free lavage until the return fluid was quite clear. This case, from general constitutional evidence, was the most desperate of all, nevertheless she lived for three weeks, when death occurred from rupture of a subphrenic abscess into the lung. Upon autopsy there was no remaining trace of peritoneal inflammation, but within the sinus that remained, though the tube had been removed in about forty-eight hours, pus was quite free. Had I been content with free lavage, and closed the wound completely without a tube, with but a wick of gauze to the peritoneum to drain the infected edges, I believe I would have received equally as good result, as far as the peritoneum is concerned, as the autopsy proved that it had effectually taken care of the remaining micro-organisms in the areas that the tube could not possibly have drained. Let us assume that we have a case of peritonitis caused by a ruptured gastric or duodenal ulcer, we operate, insert a tube, and make use of Fower's position. What do we expect will become of the remaining products of the induced inflammation? Do they gravitate to the pelvic region and escape through the tube, or does the peritoneum successfully dispose of them? We must remember that the pelvis is not a perfect funnel, but is somewhat like a saddle, the pommel being represented by the uterus or bladder with a depression on each side. Then how can all the fluid escape? What then becomes of the remaining part?

Again, in perforative appendicitis, where no protective barrier to the spreading of the inflammation, or to the escape of the contents of the appendix, has been formed, what becomes of the pus that is widespread throughout the peritoneal cavity, or of a stercolith that may have escaped detection, when drainage alone has been relied upon? All these products are not carried away by the drainage tube, and cannot be from the form of the pelvis. It is only the excess that escapes, and for a very few hours at best, the limit being probably forty-eight hours, as the tube becomes thus rapidly encapsuled by fibrous tissue, leaving a sinus, from which alone infective fluid is discharged, and not from the surrounding inflamed peritoneum, as by this time a probe cannot be passed beyond the cylindrical wall of this sinus, unless sufficient force is exerted, when it will penetrate the newly-formed tissue. In the cases of recovery, where drainage was made use of, after the tube had become encapsuled, the remaining areas of the similarly infected peritoneum must necessarily have effectually disposed of the products of inflammation. Thus we have an army of phagocytes poured into the field to give fight to the invading and rapidly multiplying army of bacteria. The former won the day because the bactericidal action of the phagocytes was greater than the virulence of the micro-organisms, after their balance of power, the numbers that escaped up to the time of encapsulation of the tube, had been removed. Now, does it not seem reasonable to assume that this great serous sac is all the more capable of successfully coping with the small amount of infection that remains when free flushing is made use of until the return flow is clear, after closing without a drain, when no necrotic tissue exists and when sutured parts are secure, especially if this remaining infection be diluted by leaving within the abdomen a large amount of normal saline, and the patient placed in Fowler's position? Is it not more probable that a much greater quantity of infective buid can be evacuated from the peritoneal cavity by freely flushing through a liberal incision or incisions, than can possibly drain away through a tube, during the few hours it is becoming encapsuled?

You may say that the relief of tension is the primal object of the drain, but then that is obtained by the incision, as the fluid gushes out, and, besides, the dilution gained by the lavage and the retention of the salt solution minimize the risk to life, and with the Fowler position absorption is more gradual, thus permitting the excretory organs to carry away the toxins. Why not then give the patient, especially in a case where the endothelium is uninjured, the stimulation that occurs from free lavage of the peritoneal cavity, and leave within it a moderate quantity of salt solution, and close without a drain? By so doing our patient reaps great advantages should recovery follow, as a stronger scar is insured, with much less liability of a subsequent operation being required for the cure of a ventral hernia.

It seems to me that a drainage-tube is of use only until it becomes encapsuled, a few hours at best; that much greater tension can be relieved by incision and free lavage; that a greater quantity of pus can be removed by flushing than can possibly be carried away by a drain during the short time it takes to isolate it; and that the retention within the abdomen of the saline solution will very largely dilute the remaining micro-organisms, place the peritoneum in the most satisfactory conditions possible, and thus favor the elimination of toxins by the organs of excretion. For these reasons it would appear that it is perfectly justifiable to close the abdomen without a drain, unless it be one to the peritoneum, although I believe this is not essential, as if pus come from the wound it behaves as an ordinary stitch-hole abscess. Why are the results by drainage so discouraging, and why are the statistical reports not more uniform? Does the fault lie with the operator, in the method of treatment, or in the variableness of the virulence of the infection? In the cases of recovery, when a tube was used, the areas that were impossible to drain must have fought a successful fight, therefore it appears quite reasonable to infer that we can obtain a greater percentage of recoveries by free lavage, thus liberating the maximum of infective fluid, and closing without a tube, for if the undrained sections are capable of sustaining themselves when a tube has been used, surely the whole sac is equal to the occasion, after flushing until the return flow is clear and the abdomen securely closed. If we can obtain as good results from operative measures by this method as are secured by drainage alone, then this procedure is the preferable one. for the reasons previously stated, as regards the strength of the resulting scar; much less liability to a ventral hernia; shorter time in bed; and the more rapid convalescence, owing to the change to better environment in the majority of cases, as most patients prefer home to hospital surroundings. The after-treatment is to follow the lines of elimination, and thus forestall, if possible, intestinal paresis. With this object in view, in about twenty-four hours, or earlier, if tympanites is present, a high 1, 2, 3 enema (turpentine 1 oz., Mag. Sulph. 2 ozs., glycerine 3 ozs., Aq. to one pint) might be used, after which a rectal-tube is allowed to remain within the sphincters for at least two hours at a time. If the enema is ineffectual, and the stomach will tolerate it, it might be well to administer one drachm of Mag. Sulph. in hot water every two hours until the desired result is secured.

Indiscriminate use of morphia in these cases is to be deprecated, for it masks symptoms, locks the secretions, and helps to induce what we endeavor to obviate, viz., intestinal paresis. Normal saline may be introduced into the rectum, or the cellular tissue and strychnia given if the heart action should indicate it. As soon as the functions of the digestive organs are restored nourishment would naturally be given on general principles.

91 Bellevue Avenue, Toronto.

Physician's Library.

A Text-Book of Surgical Anatomy. By William Francis Campbell, M.D., Professor of Anatomy at the Long Island College Hospital. Octavo of 675 pages, with 319 original illustrations. Philadelphia and London: W. B. Saunders Company, 1908. Cloth, $5.00 net; half morocco, $6.50 net. Canadian agents: J. A. Carveth & Co., Limited, Toronto.

We have perused this work with no little satisfaction. In the preface the author remarks: "Anatomic facts are dry only as they are isolated. Translated into their clinical values, they are clothed with living interest. No teacher can impart, or student assimilate, all the details of anatomy. The facts must be sifted, their comparative values fixed, and the reason for their acquisition demonstrated by directing attention to the practical problems with which they are associated. A fact that can be utilized is a fact that will survive."

Viewed from this standpoint, the work is very satisfying, and one which, on careful study, will well repay alike the practitioner and the student of medicine. We are inclined to think the title were better changed to "Applied Anatomy," for the wealth of anatomic facts revealed in this work can scarcely be relegated to the exclusive domain of surgery, inasmuch as no small part of the work is of equal value and interest to the physician. Professor Campbell in his excellent work may be said—in modern parlance—to have "delivered the goods," and it gives us pleasure alike to congratulate him on his work and to highly recommend it.

Dominion Medical Monthly

And Ontario Medical Journal

EDITORS:
GRAHAM CHAMBERS, B.A., M.B. WALTER McKEOWN, B.A., M.D.

ASSOCIATE EDITOR:
T. B. RICHARDSON, M D.

MANAGING EDITOR:
GEORGE ELLIOTT, M.D.

Published on the 15th of each month. Address all Communications and make all Cheques, Post Office Orders and Postal Notes payable to the Publisher, GEORGE ELLIOTT, 203 Beverley St., Toronto, Canada

VOL. XXXI. TORONTO, AUGUST, 1908. NO. 2.

COMMENT FROM MONTH TO MONTH.

Original Articles practically at this season of the year make so much demand upon our space that in this issue we have devoted our pages to them alone. This is done in order that several who read papers at the Canadian Medical and Ontario Medical Associations may early see their papers published. As they are exceptionally good, scientifically as well as practically, we commend them to our readers without further notice.

THROUGH the kindness of Dr. Simon Flexner, anti-meningitis serum may be obtained on application from the Sick Children's Hospital, Toronto, together with directions as to use and limits, free of cost.

News Items.

Dr. W. H. B. Aikins, Toronto, has returned from several months' stay in Continental medical centres, and will hereafter confine his practice to consultations and office work.

Dr. J. T. Fotheringham, Toronto, announces that on his return from England he will hereafter confine his practice to consultation work.

Dr. H. B. Anderson, Toronto, has moved to the north-east corner of Bloor and Huntley Streets.

Dr. R. J. Blanshard, Winnipeg, President of the Canadian Medical Association, has gone to England for a couple of months.

We have received the announcement of the American Medical Missionary College for 1908-9. This announcement is illustrated, and it has been endeavored to make it an accurate statement of the facilities and work of the school. The American Medical Missionary College is unique in that it accepts as students only those who expect to devote their lives to medical missionary work. We would respectfully invite attention to pages 107-111, on which you will find reports of examinations of the school made by the Michigan State Board of Registration and by the Association of American Medical Colleges. For copy of announcement apply to Rowland H. Harris, M.D., Registrar, Battle Creek, Mich.

Correspondence.

His Majesty King Edward VII. and Queen Alexandra have been graciously pleased to extend their patronage to the National Sanitarium Association of Canada.

TO THE MEDICAL PROFESSION.

August 3rd, 1908.

The National Sanitarium Association begs to inform the Canadian medical profession of a recent reorganization of the medical department of its Muskoka institutions, the Muskoka Cottage Sanatorium and the Muskoka Free Hospital for Consumptives.

Dr. W. B. Kendall has been placed in immediate charge of both institutions as physician-in-chief, with an assistant resident physician at each institution. It is intended also that a resident pathologist should shortly be appointed. In May, 1908, Dr. C. D. Parfitt, who had been in charge of the Muskoka Free Hospital during the six years since its opening, was made consulting physician to both institutions and will continue to live on the grounds of the hospital.

Dr. Kendall, after graduating at Trinity University, Toronto, spent some months in London, Dublin and Edinburgh, where he qualified before the examining boards of Edinburgh and Glasgow (L.R.C.P. & S., Edinburgh; L.F.P. & S., Glasgow). He was appointed to the Cottage Sanatorium on his return to Canada, in April, 1907, and in May, 1908, was also given charge of the Free Hospital.

Dr. Parfitt graduated from Trinity University, Toronto, in 1894, and, after serving as an interne for a year at the Toronto General Hospital, spent two years in London and Vienna. While in London he qualified before the conjoint examining board (M.R.C.S., Eng.; L.R.C.P., London). A year and a half more was given to post-graduate work in Baltimore in the service of Dr. Osler.

In order to extend the usefulness of its work the Association has arranged for its physicians to attend patients who come to Gravenhurst and are unable for some reason to enter or continue in either of the Sanatoria, but who wish to receive special medical supervision.

The Association is very glad at all times to have physicians visit its institutions, especially those who may wish to consult with the sanatorium physicians regarding their own patients in residence.

As a matter of special interest to the medical profession, the Trustees of the National Sanitarium Association have decided to set aside in the Muskoka Cottage Sanatorium several rooms for physicians who may have unfortunately become afflicted with tuberculosis and desire sanatorium treatment. In such cases a special discount is made the profession; that is, in place of charging the regular rate of $12.00 per patient per week, the physician so accepted as a patient will be charged only $8.00 a week.

J. S. Robertson,
Sec.-Treas. Nat. San. Ass'n.

Head Office: 347 King St. West, Toronto, Canada.

Dominion Medical Monthly

And Ontario Medical Journal

Vol. XXXI. TORONTO, SEPTEMBER, 1908. No. 3.

Original Articles.

MEDICAL INSPECTION OF SCHOOLS.*

By Helen MacMurchy, M.D., Toronto.

There are four periods in the history of any reform. First of all, everyone is indifferent, and the reformer can scarcely get a hearing. This is the period of apathy. Secondly, people are roused against the reform and make efforts to suppress the reformer. This is the destructive period. Thirdly, the reformer makes some converts and they help him. This is the period of agitation and education. Finally, the reform is accepted, and becomes part of the recognized order of things. This is the constructive period, or period of organization. And we see, at home and abroad, this reform, the Medical Inspection of Schools, passing through all these periods. Germany and Japan have been for some time in the fourth period. Great Britain as a whole entered on it with the Education Act of 1907. On this side of the sea we have all four periods represented both in the United States and in Canada. The most progressive places, such as Hamilton, Montreal, New York, and Boston are in the fourth period, and the rest of us are in one or other of the earlier periods.

In Hamilton, Dr. Roberts, the City Medical Health Officer, is Medical Inspector of Schools, and there is also a school nurse who entered on her duties Jan. 1, 1908, Miss Deyman. In Montreal in December, 1907, the City Council appropriated $1,500.00 to pay the salary of the School Nurses, who also began work on January 1st, 1908, and $11,000.00 to pay the salaries of 50 School Doctors, two of whom are women. Vancouver, Halifax, Ottawa, Brantford, and other places are moving in the same direction.

---

*Read at meeting of Ontario Medical Association.

No one will deny that wherever State education exists the medical profession must be recognized, sooner or later, as having a definite place and part in such education. We should be, through our representatives, an integral part of the school system. We can do for the rising generation what no one else can do. The Board of Education needs a medical adviser as truly as it needs a legal adviser. The Minister of Education should have a medical officer as one of his staff, as the President of the Board of Education in the British Government now has Dr. Newman and Dr. Eichholtz.

What, then, are the duties of the medical officer to any education authority? *What does medical inspection of schools mean?*

The School Medical Officer must be competent to advise the education authority as to the school itself:

1. The location of the school building.
2. The size and position of the playground.
3. The arrangement of the class rooms.

Each unit should approach as nearly as possible the ideal, 15 x 25 x 30. The desks should be separate and either adjustable or different suitable sizes, arranged, say, in six rows of seven each, thus favoring good healthy postures. The light should be from the children's left, and the left wall should be nearly all glass. A few high windows may be placed in the rear wall, and the broad aisle should be at the right, so that the desks are all near the light.

There are four other things that everyone knows about. As a rule, the school is not remarkable for:

1. Its pure air.
2. Its cleanliness.
3. Its comfortable temperature (65 to 68 degrees).
4. Its good water supply.

The School Medical Officer may be expected to create a powerful public opinion among the school population on these few broad, elementary, essential requirements of a healthy life. Pure school air and a really clean schoolroom no one has yet given us. But the School Medical Officer will do it.

This is only one part. It is, after all, the *child* who is the centre of interest. We should know whether height and weight correspond with the proper average for the child's age. The general nutrition, the cleanliness or its lack, the teeth, the nose and throat, with special attention to the tonsils, adenoid growths and enlarged glands, the sight, hearing, speech, and mental condition should all be observed. Finally, any disease or deformity claims special attention, and transmissible disease of any kind is most important to detect, not only for the child's own sake, but for the sake of the other children, the teacher, and the community.

These points must be accurately recorded, and perhaps the best available schedule, on the whole, is that issued by the Board of Education from Whitehall, with Circular 582, on January 23rd, 1908, and published in the *British Medical Journal* on February 8th, 1908. It is intended to be printed on 5 x 8 cards of the card index system, and is arranged to record four inspections.

The most favorable time to examine children is certainly when they apply for admission to school for the first time. It is then comparatively easy to secure the presence and co-operation of the parent, and much can be done in early childhood which it is too late to attempt even at the age of 12 or 14 years. Children go to school too young, but at present we must make the best of this, and there is one great compensation in the help that we can give them at an early age.

The child should be seen again on any indication of illness, and certainly should also be seen again about 12 years of age, and once more in the last year of school life.

The School Medical Officer should also pay attention to vaccination.

These are all reasonable things, and have commended themselves to the common-sense of the world. The exact method of working out the details may be best left in the hands of those who are actually engaged in the work. That is their business, and it is their duty to attend to it. The system should be allowed to grow and adjust itself to the needs of different communities. It may be said, however, that experience has a great tendency to simplify records and details.

It is generally agreed that the School Medical Officer should not undertake treatment, except in so far as to direct the work of the School Nurse. Those able to pay should at once call in the family physician, and those unable to pay must be provided for in connection with hospital clinics or otherwise, if the case cannot be taken charge of by the School Nurse.

The qualifications, mode of appointment, and remuneration of the School Medical Officer form an important group of questions for our discussion.

The qualifications required are numerous. We must, first of all, have good professional qualifications, especially a facility in diagnosis. It is a great mistake to appoint young doctors who have just graduated, except as junior assistants. We need experienced men and women who know something about children and a good deal about children's diseases, something about schools, a good deal about general hygiene, and something of the world.

The mode of appointment differs in different countries. In some places the chief sanitary authority, for example, the County or City Medical Health Officer, is required or expected, often with little or no remuneration, to undertake the work. This is manifestly unfair, and, moreover, it is possible that an excellent Medical Health Officer, specially trained in sanitary science, might not be the best person to appoint as School Medical Officer and deal with the diseases and defects and general physical welfare of school children.

In the first circular issued on the subject by the British Government, published in full in the *British Medical Journal* of November 30th, 1907, it was advised that the work should be organized under the Local Medical Officer of Health. To this advice exception was taken by the medical profession, the *British Medical Journal*, and by the lay press, especially *The Times*, in a leader published November 25th, 1907. Two things seem clear. Unless the Medical Health Officer is appointed, then the School Medical Officer, whether he is formally appointed as one of the assistants of the Medical Health Officer or not, must be in close touch with him, and should work in constant harmony with him. In many cases, both in Britain and Canada, we know that the Medical Health Officer would be the ideal appointee as School Medical Officer. Perhaps in other cases he might not.

On the other hand, as the work of the School Medical Officer is done under the direction of the School Board, and as they should pay him a reasonable and proper salary for it, then the appointment should rest with them, and they should appoint the best available physician for the work.

As to the question of remuneration, the Council of the British Medical Association has dealt with the matter and advised that the School Medical Officer be paid at the rate of £50 a year for an attendance of half a school day a week, half a school day being defined as two hours. If whole-time appointments are made, they consider that competent officers will not be attracted for a less salary than £500 per annum. It costs more to live in Canada than in Great Britain. Of course, much must depend on the time taken to examine each child. There seems to be a general feeling that not more than twelve can be examined in an hour, on an average, but that there will often be special cases requiring fifteen minutes or half an hour. Some English authorities have arranged to pay at the rate of one shilling for each child examined, and School Nurses are paid from £120 to £150 per annum.

Mr. McKenna, President of the Board of Education, received a deputation in March, 1908, from the Association of Municipal Corporations, who represented that the treasury should make a grant to defray the cost of the medical inspection of school children. Further interesting particulars in regard to this may be ascertained by consulting the *British Medical Journal* for March 28th, 1908, and, indeed, it shows the importance of this subject that the *British Medical Journal* seems now to have a new department, often occupying about a page, headed Medical Inspection of Schools.

This question of remuneration deserves our serious attention. There was a good discussion of Medical Inspection of Schools in the Inspectors' Section of the Ontario Educational Association last Easter. The paper, an excellent one, was presented by Inspector Chapman, of Toronto, and it was well received. But the President of the Section made this significant remark: "I am just afraid that the Doctor would get for his few visits as much as the teacher would get for teaching the whole year." Teachers are not paid as well as they should be, but neither are doctors. We must try to look at the question from both points of view.

Co-operation of

1. *The school-child and the parent.*
2. *The teacher and other education authorities.*
3. *The School Nurse, School Medical Officer, and other medical authorities.*

When the School Medical Officer enters the schoolroom, which, it seems to me, he or she should do not infrequently, and as a welcome visitor, a visitor who can soon make himself welcome, he enters as our representative, on a new and very promising field of work, and one where we, as physicians, must adapt ourselves to new relations. In the hospital the doctor's word is law. In the sick-room the patient almost feels as though we held in our hands the power of life or death. But in the school-room the teacher's word is law. We are there only because we can help the teacher. The teacher has the power. And we must use infinite tact and pains not to disturb the atmosphere of study and quiet discipline which is the life of the schoolroom. We must cultivate the most cordial and friendly relations with the teacher, taking him or her into our confidence, and relying upon him as our most powerful ally. And we must aim to secure the good-will and confidence and active assistance of the child. Our aim is to make the child strong, healthy and happy, but the school-child in turn can help us. Mr. Joseph Chamberlain, in 1893, utilized the school-child in Africa as a sanitary reformer, and through the school-child popularized in a few days the scientific means of preventing malaria, which otherwise would not have been effective in a whole generation. In Liverpool recently, under the direction of the Medical Health Officer, Dr. Hope, the teachers explained to the children in school about the census returns, especially in regard to tuberculosis, and the benefit of this work was immediately seen, for the returns were better filled out than ever they were before. In this connection, it should also be stated that the school nurse is a most important link between the doctor, the school, and the home. In New York, where 10,000 children had to be excluded before the advent of the School Nurse, only 1,000 needed to be excluded when she was there to care for the child, to visit the home, to suggest, and relieve and plan, and assist the home people in cleansing or caring for the school child, who would otherwise have been kept, sick, dirty, and forlorn, outside the school, which is the pleasantest place such a child ever enters. The School Nurse is indispensable in a scheme of medical inspection of schools.

Another important point remains to be considered, namely: How is the teacher to have access to the store of knowledge at the command of the School Medical Officer and other medical experts? Those familiar with teachers in training at our Normal Schools and elsewhere cannot but know that many of them are ignorant of the laws of hygiene. To them the brilliant victories of modern medicine over disease and death are all unknown. In some way or other, by giving in our Normal Schools an inspiring, modern, progressive and thoroughly scientific course on preventive medicine and school hygiene, we should recover lost ground, for you know that even the small provision made for such teaching in our Normal Schools has been almost swept away. Experts should also give from time to time lectures and general talks relating to local sanitary questions, delivered preferably in the schools, and arranged for teachers and parents.

Results of School Medical Inspection.

These have been uniformly gratifying. Where the system has been given a fair trial it has never been abandoned. The School Nurse, the School Bath the Open Air School, all these good movements are the result of medical inspection of schools. With the help of the pathologist, and by dint of the study of milk supplies, and finally by the aid of the school doctor, we have arrived at the conclusion that tuberculosis in many instances is contracted in childhood, latent in youth, and evident in adolescence. Rightly viewed, these facts, and the placing of them in their proper relation to the whole modern, hopeful, scientific—but not panicky—view of tuberculosis before our teachers, and through them before the school population, will aid wonderfully in preventing the White Plague.

Great attention has likewise been directed to the fact, which we all knew before, that food and air make children grow. In Glasgow 73,000 children were examined and then classified according to the size of the home they lived in. Here are the averages:

	Height.	Weight.
One room	46.6	52.6.
Two rooms	48.1	56.1
Three rooms	50.0	60.6
Four rooms	51.3	64.3

The lesson is plain. If the *country* is not to suffer these children must be fed. Someone must do it, if the parents really cannot. The School Doctor has proved over and over again what the good teacher has known a long time—that unfed children cannot learn. Unless we are to waste some of the enormous sum spent on public education, these children must somehow be fed. And there are unfed children in Ontario. I can show you a school in Toronto where the head mistress has for years, and wisely, provided dinner in winter.

A great improvement has taken place in the seeing, the breathing, and the teeth of thousands of children since the School Doctor came. The School Doctor has been the best friend that the mentally defective child ever had.

Finally, in regard to contagious diseases, it would be difficult to estimate how many lives have been saved.

In Chicago, for the week of November 23rd, 1906, there were 150 cases of diphtheria and 109 of scarlet fever. There were no Medical School Inspectors then. There were only 117 cases of diphtheria and 89 of scarlet fever in the corresponding week of 1907, when there were Medical School Inspectors, and the weekly *Bulletin* says: "The value of School Medical Inspectors in staying the headway of epidemics is in evidence almost daily. The work of the Medical School Inspectors has not only stayed the threatened epidemics, but is decreasing the number of such diseases at a time and under conditions favorable for the extension of infectious diseases."

Circular to Local Education Authorities.

Schedule of Medical Inspection. **Circular 582.**

Letters should be addressed—"The Secretary, Board of Education. Whitehall, London, S.W.," and should show the complete postal address and designation of the writer.

BOARD OF EDUCATION,
WHITEHALL, LONDON, S.W.,
23rd January, 1908.

EDUCATION (ADMINISTRATIVE PROVISIONS) ACT, 1907, SECTION 13.

SIR.—

1. The accompanying Schedule has been drawn up in response to requests which the Board of Education have received for further and more definite guidance as regards the details of the work of medical inspection than was given in the Memorandum (Circular 576) which was issued by the Board on 22nd November, 1907. The Board have, indeed, been pressed by many local education authorities to issue a complete set of Forms for use in carrying out the work directly or incidentally involved in the performance of these new duties. Any Forms which experience of the working of the Act may show to be necessary or desirable will be issued in due course, but for the present the Board think it expedient to leave considerable latitude, subject to the considerations hereinafter set out, in regard to the particular Forms or Schedules to be used in different cases or circumstances.

2. The chief difficulties to be considered are administrative rather than educational or scientific. There is comparatively little dispute as to the end in view, or as to the means which, from the technical standpoint of medical science and practice, should be adopted for its complete attainment.

But the existing resources of Local Education Authorities are (for practical purposes, at all events) not unlimited, the feelings and prejudices of parents have to be considered, and a new element has to be introduced into school life and organisation with the least possible disturbance and inconvenience. Moreover, in this case two departments of local public administration are brought for the first time into organic connection—those of public health and of public education.

3. The Board are fully aware of these difficulties, and in preparing their Memorandum and Regulations it was necessary for them to consider what system would best reconcile the theoretical

and practical considerations, and overcome the divergence between the ultimate end and the end immediately attainable, or between the methods which are scientifically desirable and those which can be applied in existing circumstances at the initiation of the work under the Act.

4. In the accompanying Schedule the Board indicate the particulars, attention to which they regard as constituting the *minimum* of efficient medical inspection, and they consider that at least these particulars should be included in any other Schedule which the Local Education Authority may authorise for use in their Schools. It deliberately excludes many points of anthropometric or statistical interest which are worthy of attention, and which it is hoped may receive attention in suitable districts. Nor does it profess to lay down the lines of a clinical study or of a scientifically complete medical examination. It is intended to indicate the methods which, in the Board's opinion, should be followed and the particulars which should be attended to for the purpose of determining the fitness of the individual child for school life, to guide the Authority in adapting education to the peculiarities or abnormalities of the child, and to prepare the way for measures for the amelioration of defects in the child or its environment.

A more elaborate and complete form could readily be devised, but the Board's knowledge of the circumstances in which the work is to be done leads them to believe that greater elaboration would in the majority of cases defeat its own end.

5. If this Schedule is properly used, few cases of serious physical weakness or defect will escape detection. Where the ordinary inspection shows the need of further and more searching medical examination, a supplementary blank form should be used in which particular defects or diseases should be fully recorded. It may facilitate inspection if the Schedule is printed on cards* (8 in. by 5 in. or 10 in. by 6 in.). The Notes are included in the attached form for the convenience of the School Medical Officer, and should not be reprinted on the cards. Of course, it is not necessary that negative findings on all the points mentioned in the Notes should be recorded.

It will be noticed that a space is reserved in the Schedule for "General Observations"; this may conveniently be used to record a general summary of the condition of the child, and any information which may be available as to the home environment, or other conditions affecting its health.

---

* Specimen cards are enclosed, but cards will not be supplied with the copies of this Circular, which are placed on sale.

It is considered that the inspection of each child should not occupy on the average more than a few minutes, and that the child need only, as a rule, have its clothes loosened or be partially undressed. Time may be saved in the actual inspection by the Medical Officer if the entries in some of the spaces are filled in by the school authorities before his visit. The four columns in the Schedule are designed for the four inspections required during school life.

With regard to items 17 to 24 of the Schedule, while it is necessary that all indications of diseased or unsound conditions should be thoroughly investigated, needless medical examination of healthy children should, for obvious reasons, be avoided.

6. Where children are found to belong to that class of "defectives" for whose education special provision is or ought to be made under the Statutes relating to such children, such cases should be made the subject of a special report to the Local Education Authority.

7. *All entries of the results of inspection in each individual case must be regarded as confidential.*

I have the honour to be, Sir,
Your obedient Servant,
ROBERT L. MORANT.

To the Local Education Authority.

NOTES FOR INSPECTING OFFICER.

Reference Number of Note.

1. Date of birth to be stated exactly, date of month and year.
2. "Other illnesses" should include any other serious disorder which must be taken into account as affecting, directly or indirectly, the health of the child in after-life, *e.g.*, rheumatism, tuberculosis, congenital syphilis, smallpox, enteric fever, meningitis, fits, mumps, etc. The effects of these, if still traceable, should be recorded.
3. State if any cases of, or deaths from, phthisis, etc., in family.
4. Note backwardness.
5. Age to be stated in years and months, thus, 5 4-12.
6. Insufficiency, need of repair, and uncleanliness should be recorded (good, average, bad).
7. Without boots, standing erect with feet together, and the weight thrown on heels and not on toes or outside of feet.

Reference
Number
of Note.

8. Without boots, otherwise ordinary indoor clothes.
Height and weight may be recorded in English measures if preferred. In annual report, however, the final averages should be recorded in both English and metric measures.

9. General nutrition as distinct from muscular development or physique as such. State whether good, normal, below normal, or bad. Under-nourishment is the point to determine. Appearance of skin and hair, expression, and redness or pallor of mucous membrane are among the indications.

10. Cleanliness may be stated generally as clean, somewhat dirty, dirty. It must be judged for head and body separately. The skin of the body should be examined for cleanliness, vermin, etc., and the hair for scurf, nits, vermin, or sores. At the same time ringworm and other skin diseases should be looked for.

11. General condition and cleanliness of temporary and permanent teeth, and amount of decay. Exceptional features, such as Hutchinsonian teeth, should be noted. Oral sepsis.

12. The presence or absence of obstruction in the naso-pharynx is the chief point to note. Observation should include mouth-breathing; inflammation, enlargement, or suppuration of tonsils; probable or obvious presence of adenoids, polypi; specific or other nasal discharge, catarrh, malformation (palate), etc.

13. Including blepharitis, conjunctivitis, diseases of cornea and lens, muscular defects (squints, nystagmus, twitchings), etc.

14. To be tested by Snellen's Test Types at 20 feet distance (= 6 metres). Result to be recorded in the usual way, *e.g.*, normal V. $= \frac{6}{6}$. Examination of each eye (R. and L.) should, as a rule, be undertaken separately. If the V. be worse than $\frac{6}{9}$, or if there be signs of eye strain or headache, fuller examination should be made subse-

Reference Number of Note.

quently. *Omit vision testing of children under 6 years of age.*

15. Including suppuration, obstruction, etc.

16. If hearing be abnormal or such as interferes with class work, subsequent examination of each ear should be undertaken separately. *Apply tests only in general way in case of children under 6 years of age.*

17. Including defects of articulation, lisping, stammering, etc.

18. Including attention, response, signs of overstrain, etc.
The general intelligence may be recorded under the following heads: (*a*) Bright, fair, dull, backward; (*b*) mentally defective; (*c*) imbecile. *Omit testing mental capacity of children under 6 years of age.*

19. Under the following headings should be inserted particulars of diseased conditions actually present or signs of incipient disease. The extent of this part of the inspection will largely depend upon the findings under previous headings.

20. Include heart sounds, position of apex beat, anæmia, etc., in case of anything abnormal or requiring modification of school conditions or exercises.

21. Including physical and clinical signs and symptoms.

22. Including chorea, epilepsy, paralyses and nervous strains and disorders.

23. Glandular, osseous, pulmonary, or other forms.

24. State particular form, especially in younger children.

25. Including defects and deformities of head, trunk, limbs. Spinal curvature, bone disease, deformed chest, shortened limbs, etc.

26. Including any present infectious, parasitical or contagious disease, or any sequelæ existing. At each inspection the occurrence of any such diseases since last inspection should be noted.

27. Any weakness, defect or disease not included above (*e.g.*, ruptures) specially unfitting child for ordinary school life or physical drill, or requiring either exemption from special branches of instruction, or particular supervision.

SCHEDULE OF MEDICAL INSPECTION.

I.—Name .... Date of Birth[1] ....
Address .... School ....

II.—Personal History:

(*a*) Previous Illnesses of Child (before admission).

Measles.	Whooping Cough.	Chickenpox.	Scarlet Fever.	Diphtheria.	Other Illnesses.[2]

(*b*) Family Medical History (if exceptional).[3]

——	I.	II.	III.	IV.	——	I.	II.	III.	IV.
1. Date of Inspection........					13. Ear disease[15]				
2. Standard and Regularity of Attendance[4]					14. Hearing[16]				
3. Age of Child[5]					15. Speech[17]				
4. Clothing and footgear[6] ...					16. Mental condition[18]........				
III.—*General Conditions.*]					[V.—*Disease or Deformity.*][19]				
5. Height[7]					17. Heart and circulation[20]....				
6. Weight[8]					18. Lungs[21]....				
7. Nutrition[9]					19. Nervous system[22]				
8. Cleanliness and condition of skin[10]................					20. Tuberculosis[23]...				
Head					21. Rickets[24]				
Body					22. Deformities, Spinal Diseases, etc.[25]............				
IV.—*Special Conditions.*]					23. Infectious or contagious disease[26]				
9. Teeth[11].......					24. Other disease or defect[27].				
10. Nose and throat[12].........									
Tonsils									
Adenoids									
Submax and cervical glands									
11. External eye disease[13]....									
12. Vision[14]									
R.					Medical Officer's initials				
L.									

General observations.

Directions to Parent or Teacher.

DISCUSSION.

DR. JAMES ROBERTS, M.O.H. (Hamilton, Ont.).—It is now little more than a year since our first systematic attempt was made at medical inspection of schools in this city, and even with the limited resources and facilities at our disposal for the carrying on of the work I think we can truthfully say that the results have been somewhat gratifying. Until recently our school inspection was limited to the control of communicable diseases, and, as I pointed out in my annual report, it is simply remarkable how much can be accomplished along this line with the assistance and co-operation of the teachers alone. When I undertook, at the request of the Board, of Education, something over a year ago an inquiry into the physical conditions of our school children, I was somewhat doubtful as to the urgency of this work in a city of our population and social characteristics. It is not difficult to unhesitatingly concur in the findings of those who have investigated conditions as they exist in the large and intensely congested centres, and I must confess that only personal investigation could ever have convinced me of the great importance of an early recognition on the part of the authorities and the public in general that the health of our school population is not all that could be desired. The multitudinous duties of a Health Officer in a city of even this size rendered it impossible for me to do more than merely touch the fringe of the work.

For some months past our school nurse has devoted her whole time to it, and has proved herself a capable and intelligent inspector. I am glad to be able to say that there has been at all times the heartiest co-operation with our department. Communicable diseases were never more promptly and completely recorded—the exclusion of these where present in school never so thorough, and a great many defects have been pointed out to parents—a considerable proportion of which have been remedied.

We have been able to accomplish a great deal toward the eradication of pediculosis, scabes, impetigo, ringworm, etc., which exist to an extent unrealized by those not specially interested in the subject. Our teachers concede that as a result of inspection in personal cleanliness, tidiness, and general morale of the pupils, we have gained a great deal. The establishment of a dental infirmary, which would do something for the deplorable condition of the 75 per cent. of school children's mouths is greatly to be desired, as is also some provision whereby defects in vision, which even on rough examination are found to exist to a surprising extent, may be remedied. Just at this point arises our chief difficulty. On all sides this school inspection is looked upon as a good thing. All popular expressions of opinion favor it, and yet the necessary financial assistance to make it practical in results seems to come grudgingly. Where the excuse for this exists I have not been able to ascertain.

Our public men point with pride to increased expenditures in the cause of education, increases which may be largely wasted because we do not take into account the physical peculiarities of the boys and girls who, perhaps, are being tortured rather than educated. Once let an intelligent boy realize that the possession of a good set of teeth by him is of so little moment to the body politic, that it isn't worth a trifling expenditure on his behalf, and the conclusion that it doesn't matter much to anybody whether or no he becomes a saloon frequenter, gets drunk or goes to jail is not so illogical as it may seem. "Apathy," not malice prepense, seems to reconcile us to the strange irony of life that the expenditure which is denied in order to find out the mental and physical capabilities of a child is readily sanctioned for an education ill adapted to his needs and for the administration of criminal justice. "Apathy" it must be that allows without protest deliberations over railways, power and light schemes, and corporation franchises to consume almost the entire time of our municipal and parliamentary representatives to the exclusion of housing problems, sanitation of streets and public conveyances, parks and playgrounds, and the thousand and one other little considerations which contribute so materially to the public health, the comfort and well-being of the great mass of the people.

"Fully 25 per cent. of the deaths in the community," says Osler, "are due to this accursed 'apathy,' fostering a human inefficiency, and which goes far to counterbalance the extraordinary achievements of the past century. Why should we take pride in the wonderful railway system with which enterprise and energy have traversed the land, when the supreme law, the public health, is neglected? What comfort in the thought of a people enjoying great material prosperity when we know that the primary elements of life (on which even the old Romans were our masters) are denied to them? What consolation does the "little red schoolhouse" afford when we know that a Lethean apathy allows toll to be taken of every class from the little tots to the youths and maidens?"

Paton, in his recent work on Psychiatry, says: "The opinion of an expert is sought for in examining a new recruit, who is desirous of entering the ranks of the army or navy; and to-day the universities have physical directors to examine into and pass upon the physical condition of students before they are allowed to compete in inter-collegiate sports. And yet at the same time a heterogeneous mass of humanity, without any form of selection, and utterly regardless of its fitness, is driven through a so-called education. Society at large must sooner or later awaken to the realization that the indiscriminate education of the masses cannot be too strongly condemned, for excessive demands upon the brain power of a community must ultimately lower not only the intellectual, but also the moral standards. Even with the crude and imperfect methods now used by the alienist, if the opportunity were given to him to apply his tests, it would be possible greatly to reduce the numbers of those who are seriously injured mentally and morally by a schooling ill adapted to their individual needs and necessities. Everyone admits that it is the duty of the physician to warn those with weak hearts or lungs not to overtax those organs. Is it not equally important that the mental welfare of the community be safeguarded? Only some men are born to be educated; how many more, unfortunately, have thrust upon them an education, which is disastrous not only to themselves, but also to the community at large?

To prevent the sins of over-educated fathers and mothers from being visited on the children unto the third and fourth generation is a problem of great sociological as well as economic importance to the State. The sudden expansion of mental powers may be quite as unfortunate as the sudden acquisition of riches, and the community that heedlessly imposes mental tasks indiscriminately upon the children in its Public schools adds greatly to the list, already appalling in length, of those who overtax the capacities of hospitals for the insane.

Gentlemen, only when we realize the truth of these observations by competent authorities will medical inspection rise as part of our school economy to its essential and proper proportions.

Dr. Robert Law (Ottawa).—I congratulate Dr. MacMurchy on her excellent paper, bringing forward this question which is now coming into prominence as a live matter, and consider that this matter will shortly be considered part of the regular routine of a Health Department's duties, and that the work should be under direction of Health Department.

In Ottawa the Health Officer has done such work as has been done; this was chiefly in control of contagious diseases, with the result that the schools have been kept free from any epidemic; and in throat inspection cases of scarlet fever and diphtheria have been removed from classes.

Teachers have been found allies in this work, and should be taken into account in any scheme of inspection, as the alert teacher, accustomed to the normal appearance of the child in health, will readily note any marked departure therefrom, and can notify Medical Officer.

The schools in Ottawa have been placed in first-class condition during the past five years through the employment of a permanent architect, who has made a special study of school sanitation.

I have recommended an outlay for medical inspectors to work with the Medical Health Officer, but the authorities have so far turned it down, owing to the plea of financial stringency. It will be necessary for us to show the authorities that it is a business proposition which will give an adequate return for outlay. The plan I proposed is to employ several inspectors to attend the schools at the opening of the fall term and examine all children, similarly examine any new-comers during term, and any cases referred to the officer by the teacher, or on the occurrence of any infectious disease. The inspector to be paid according to the amount of work done.

MEDICAL THOUGHTS, FADS, FACTS, AND FANCIES.

By James S. Sprague, M.D., Stirling, Ont.

You, no doubt, brother, have in quiet moments, and very frequently, too, thought what new specialty would arise to disturb our quiet, yet never-ending studies and researches. Dr. Waetzold has equalled, in fact has eclipsed, Dr. Gould, of Philadelphia, in extremism. While the distinguished lexicographer and oculist-biographer attributes numerous nervous ailments to "eye-strain," with equal learning and copious illustrations, Dr. W. claims "ear-strain" as the prominent factor, and we, country doctors—in fact all M.D.'s—will await their published claims for the prize—for leisure moments' reading, and for our sanction and authority, provided we consider them intelligent and adaptable.

To one who is observant, there are many evidences most pleasurably afforded of the tendency of many medical journals to discontinue their publications or to form an amalgamation in publication with some other similar journals. Equally noticeable is the drift of medical colleges—mostly of the stock company order—towards suspension of business or to a unity with a well-endowed or state university. That these changes are for the best and honorable interests of medicine the student or observer will, at once, admit as stubborn facts.

We, who are readers of medical journals, admire such articles as Drs. Hunter and Powell present, and not least the classical writings of Dr. Fischer, who tells us of the glorious deeds of the Fathers in Medicine—a subject much neglected in our medical course.

Harvard, during very many years, has required of candidates for matriculation in medicine the Bachelor's degree in Arts or Philosophy, and Cornell recently has announced similar requirements for its M.D. degree. This announcement recalls the words "History repeats itself," for the student in Medicine will remember that several centuries ago Oxford and Cambridge required of medical students similar qualifications. That our Canadian universities and Provincial Medical Councils do not exact, and have not exacted, such matriculation requirements is not only lamentable, but disastrous to the respectability of medicine. Such is to me an established belief, proven by my careful study and inspection of more than 1,200 undergraduates and graduates, who were passing our Council's examinations and those of the University of Trinity College. The fact is this, and very evident to all interested in the progress and respectable standing of medicine, that there has been, and now is, unpardonable velleity on the part of our legislators and faculties in medical studies in reference to such preliminary requirements. Although to many, like myself, whose studies in Arts were totally distinct from association with medical subjects, the lately-arranged and combined courses, wherein either the B.A. or B.S. and Medicine are sought, although not ideal, are commendable, it would appear, to use a simile, like the present of the silver spoon for each one pound of baking powder. Another fact is, those who were not privileged to acquire either B.A. or B.S. or Ph.B., disassociated from medical studies, deserve the profession's highest esteem in the struggle for the acquirement of two degrees, and, too, well worthy that *cum honoribus* should appear on their parchments. Yes, *honor graduates* they are, and ever will be in our estimation, but we feel very weak, especially so when we notice in every country newspaper that nearly every dentist is an "Honor Graduate of Toronto University," and they, or each one of them, is a *doctor*. Another fact is, I do not think so much respect is contained in *doctor* as when, in 1869, I received M.D., for our universities of late, to catch popularity and pennies, are multiplying faculties, and the *doctorate* is the bubble, beautifully colored and equally as empty, for the unwashed and inane aspirants. In time we will assume the plain *Mr.* and follow the example of Cameron. Not least, it has been my belief for many years that any university in catering to the whims of visionaries for faculties is dishonoring itself and the three learned professions and is doomed to dishonor. Are such "pipe dreams"?

To have had an hour's pleasurable conversation with one of my professors and an ex-M. H. O. of Toronto, a writer of a medical text-book, a biographer of the earliest settlers of the Bay of Quinte district, an ex-surgeon of more than ordinary distinction of the U. S. army, etc., in a House of Refuge is not cheering to my thoughts or to those who may read this acroamatical gallimaufry. Such has been a recent event and proof that intemperance debases; however, in this instance, the inmate of the county's Refuge is self-suporting, although invalidated. Yes, brother, he is an ex-President of the Canadian Medical Association and author of the classical work, "The Biographies of Canadian Medical Men." *Magni nominis umbra.*

It is, in a sense, somewhat lamentable that we, who are prevented by various fates from attendance at our Provincial and Dominion Medical Associations, are benefited only by an occasional publication of an address, and as such able addresses appear at diverse times and in the authors' favorite journals the halo of glory of these annual gatherings is not apparent to absentees, but is fully enjoyed, personally exalting, encouraging, and honoring to not only city but the "four corners" licentiates in our ranks. One fact is this, that by yearly or more frequent associations with each other to compare experiences, to confirm old views or to abandon them, to have our egoism appear or to be silenced, or by association have moments for self-introspection and the renewal of old acquaintances not only frees "our minds from many silly notions," but makes us better citizens, and, most decidedly, better doctors. The benefits are innumerable and within the power of obtainment by all who hold progressive views and feel the responsibility of the doctorate.

Very few professors, I learn, have had experience in what is ordinarily termed "country practice," and when we consider the fact that nine-tenths of the number of students are from the country, and no doubt will engage in rural practice, it is to be regretted that said professors cannot and do not give lessons from experience as regards aretology, the ethics of practice, and other instruction in which and by which their students would be benefited. for thus forewarned and instructed many more years of more efficient service to the community, financial results more encouraging, in fact, every benefit we pray for, would result from heart-to-heart talks about their future labors.

The so-called ethical medicine concerns, whose goods by every device, assisted by medical journals, are most disgustingly and too often introduced to us, have been and are our greatest enemies in every respect, especially so in the cleavage they have caused in our relationship to our next best friends—the honest druggists. However, reaction is setting in, and we are learning that the local druggist has enough on his shelves to meet our practical work—and also learning that the price lists are eclipsed by ethical and legitimate publications more deserving of our study and adoption—learning, too, that it is not professional to act as salesmen for non-ethical goods, even if, in our verdancy, we hang on our office walls their alluring and charming, yet disgraceful, picture cards. We, of all professional men, most assuredly are the most easily victimized, and an ordinary survey of our own daily life will most clearly, yet sorrowfully, prove this fact. Yes, the allowance by us of the work of the patent medicine concern or company to break up an ancient and honorable friendship existing between us and druggists, is dishonorable and disastrous, and those of us who take brief yet clear observations of the movements and designs of men can easily see the maelstrom to which we are drifting. To preserve our professional standing we must preserve our friendship with honest druggists—our best friends.

A TREATMENT FOR SPRAINED ANKLE.*

By J. Sheahan, M.D., St. Catharines.

When we speak of sprained ankle we understand an injury suddenly produced in that joint when its movements are carried beyond their normal physiological limits, or when the bones entering into its formation are deflected in some unnatural direction, without, however, producing actual dislocation. Then we find a stretching, or a partial rupture, or a complete rupture, of some of the ligamentous fibres surrounding the joint, with injury to the synovial membrane and the tendons and tendon sheaths about it.

---

* Read at the annual meeting of Ontario Medical Association at Hamilton.

There are sprains by eversion, and sprains by inversion, the latter being more common. In sprains by eversion the foot is usually rotated outward at the tip, and flexed corresponding to the physiological movements. The ligaments on the plantar and inner surface of the foot are very strong, so that forced eversion or outward rotation is more apt to fracture the malleolus than to tear the ligaments, and possibly also to fracture the fibula, producing a Potts' fracture; however, less degrees of force do produce sprains of this character, with injury to the internal lateral or deltoid ligament. In sprains by inversion the foot is rotated inwards and extended (plantar flexion). If this happens without much inward rotation of the tip of the foot (adduction) the calcaneo-astragaloid ligaments and those below and in front of the external malleolus, and on the dorsal outer surface of the astragalo-scaphoid joint, are torn. The most frequent site of tenderness and ecchymosis is, therefore, below and in front of the external malleolus. On the other hand, if inward rotation (adduction) of the foot predominates, the joints between the calcaneum and cuboid and between the scaphoid and cuneiforms are more often contused, producing a sprain of the tarsus; the ecchymosis and tenderness is then farther forward.

Symptoms.

The injury is accompanied as a rule by pain, often of an intense throbbing character, and followed by more or less disability, swelling, heat and discoloration of the surrounding parts, even over the foot and leg. Peri-articular swelling is a marked and early symptom, because of the fact that the soft parts next the joint are not hidden under thick layers of muscle and fat.

Causes.

Injuries of this character may be caused by a variety of accidents.

The commonest are, falls, which either carry flexion or extension too far, or force the bones forming the joint in a wrong direction; or twists, such as occur when the patient suddenly turns about with the foot fixed.

Various conditions act as predisposing agents to sprains; amongst the most common are a previous injury of a similar nature, which leaves a weak joint behind; or a deformity or mal-union of a fractured tibia, which places the joint at a mechanical disadvantage and alters the normal line of transmission of the body-weight.

Lesions.

The actual lesion which occurs when the ankle joint is sprained varies considerably in different cases and is often difficult to determine accurately. The chief effect of the injury always falls on the ligaments, and they are damaged to a greater extent than any other structures of the joint; in fact, the degree of sprain is determined by the extent of injury to the ligaments.

In the mild forms the ligaments are merely overstretched; in others they may be torn from a small amount in the medium to an extensive degree in the severe injuries.

In the severe injuries the ligaments are torn across, or detached from the bone, opening the joint capsule; or portions of the bone, usually the tip of one or other malleolus, may be detached along with the ligaments.

Results.

The results of these injuries will vary with the severity of the lesions. The immediate effect is the occurrence of pain. Then swelling of the joint rapidly follows.

In the milder cases, when the ligaments are simply overstretched, there is comparatively slight swelling immediately after the accident, but a synovitis may subsequently occur and give rise to much trouble. In the more severe cases there is usually considerable effusion of blood at the time of the injury, and this will produce a certain amount of immediate swelling of the joint. This swelling is later increased by the occurrence of synovitis.

The remote effects of sprained ankle result partly from the synovitis and partly from the imperfect union that not uncommonly occurs in the torn fibres of the ligaments. The latter condition is especially troublesome later in the course of the case, and gives rise to that feeling of weakness which is so common a result of neglected sprains.

Unless the synovitis be actively treated it may lead to a permanent weakness of the joint from over-distension or from adhesions between various parts of the synovial surfaces, which, although fibrinous at first, may organize into fibrous tissue, and thus interfere with the proper movements of the joint.

It is also well to bear in mind that when there is considerable hemorrhage the blood is very slowly absorbed from the articular cavity, in which it remains fluid for a considerable time.

All sprained ankles, when the foot has been thrown out or everted, are liable to be followed by a weakened arch or the development of a valgus, so these sprains should be treated with the foot well thrown in, inversion, and later a proper lace shoe with an arch support should be worn.

The possibility also should be remembered that the torn ligament may fail to unite properly, because a portion of it projects into the joint and is nipped between the articular surfaces. This may give rise to serious disability.

Diagnosis.

The diagnosis is made by the tenderness, undue mobility allowed by the laxity of the injured ligament when the case is seen early, ecchymosis, and absence of fracture of the malleoli or torsal bones. Pain is always sudden and may persist.

When there is considerable effusion of blood into and about the joint it may be impossible to detect a fracture without a radiographic examination. So that, in the absence of displacement, such fractures are very often overlooked and treated as sprains. Therefore, in a doubtful case, the injury should be treated as a fracture.

Treatment.

It will be seen from the foregoing statements that a sprain of the ankle is not a matter to be lightly considered. The persistent trouble that so frequently follows a sprain is undoubtedly due to the imperfect appreciation of the bad results that follow neglect.

This explains the reason for the popular saying that "A sprain is worse than a break." It has been a common experience of many to obtain better results from treating fractures than from treating sprains, the real reason being that the requisite amount of care has not been bestowed on the spain.

The treatment of a sprain must obviously depend to a large extent upon the severity of the injury.

For clearness we may divide sprains of the ankle into three classes:

1. Into the mild form, where there is simply overstretching of the ligaments, and perhaps no extravasation of blood, or very little.
2. In the medium form, where there is less or more rupture of the fibres of some of the ligaments, with little or much extravasation of blood.
3. In the severe form, where there is complete rupture of some of the ligaments, but not sufficient to produce actual dislocation, accompanied by much effusion of blood and injury to the tissues.

Treatment in General.

The first indication in treatment is clearly to check the extravasation of blood into the joint and surrounding tissues.

The second is to promote absorption of blood already effused.

The third is to obtain satisfactory healing of the injured ligaments, and to restore the movements of the joint to their normal range.

In every case the treatment should commence with free movements of the joint in all directions, so as to make sure that no portions of the torn ligaments lie between the articular surfaces.

Some advise a dose of calomel, to be followed in eight hours by a saline.

To meet the indications mentioned, the ankle should be placed at rest, with pressure and cold applications at first; then massage and passive motion for a variable time, depending upon the extent of the injury, and in severe cases fixation on a splint, followed by the application of an adhesive plaster dressing. In the mild sprains the adhesive plaster dressing is applied at once. The patient is allowed to walk some on the foot within the limits of pain.

The adhesive plaster-dressing was introduced in this country by Dr. Virgil P. Gibney, of New York, in a paper published in the *New York Medical Journal* on February 16, 1895. He states that it was first used by Mr. Edward Cotterel of London.

The leg is first washed and shaved. For a sprain about the external malleolus the foot is held at a right angle, and slightly everted. A strip of rubber plaster twelve inches long and one inch wide is applied, beginning at the outer border of the foot near the little toe, and ending on the inner side of the foot about its middle, just under the plantar arch. The second strip is applied vertically, and passes from about the junction of the middle with the lower third of the leg, down alongside the tendo-achilles under the heel and terminating at a point just above the internal malleolus, but posterior to this.

The remaining strips are applied in the same way, each overlapping the other about one-half, until the malleolus and side of the foot up to the middle third of the leg is covered. It is well to reinforce just under the malleolus by strips passing crosswise, so as to give additional support to the part sprained.

The ankle is not completely encircled, so there can be no constriction. The dressing is applied in a corresponding manner for sprain about the internal malleolus.

Over the ankle thus strapped a cheese-cloth bandage is applied, which ensures the adhesion of the plaster.

If the toes are swollen, the whole ankle must be strapped. Every toe should be separately strapped before the ankle dressing is applied. The dressing may need to be renewed when the swelling recedes.

By this plan a slight amount of antero-posterior motion is allowed, just enough to prevent adhesions in the joint. Lateral motion is prevented, and so the torn ligaments are kept in apposition.

When the sprain involves the tarsal joint itself, or the mid-tarsal joint, and when the whole foot is involved, it is put up as follows: The first strip starts on the inner side of the heel, passes back of the heel below the external malleolus, over the dorsum of the foot, and terminates just under the ball of the great toe. The second strip is started just under the external malleolus, passes over the back of the heel, over the front of the foot, and terminates just under the outer side of the foot, near the little toe. The subsequent strips are applied overlapping upwards above the two first strips. Sometimes extra strips are applied up and down the tendo-achilles, the ends terminating in the sole of the foot.

Treatment in Detail.

1. In the mild form, where there is simply overstretching of the ligaments, with no effusion of blood, or very little, the condition can be estimated by the amount of immediate swelling and pain. The foot is bathed in cold water—though some men advise plunging it alternately into salt water as hot as can be borne, and cold water, for half an hour—to relieve the pain and check the hemorrhage.

The adhesive plaster-dressing is applied as described. The pressure of the plaster prevents any further effusion of blood. The patient is instructed to use the foot, and walk a little every day within the limits of pain.

2. In the medium form, which comprises most of the sprains encountered, where there is less or more rupture of the fibres of the ligaments, with less or more extravasation of blood into the joint and surrounding tissues, the foot is bathed in cold water, wrapped in several layers of cotton, with a firm roller bandage over them, elevated, and an ice bag applied for twenty-four or forty-eight hours according to the degree. This usually prevents any further extravasation of blood, and relieves the pain. This plan tends to subdue the inflammation and to lessen the subsequent synovitis.

The foot is then bathed in warm water. Gentle massage is given by the medical man, its object being to get rid of the effusion into and around the joint.

It should consist merely of gentle stroking in the upward direction, and it should be practised only for about one-quarter of an hour. At first it will probably be found that the lightest pressure causes the patient a good deal of pain, but as the massage is persevered with the pain becomes less, until at the end of the sitting the rubbing will be borne without complaint.

The adhesive plaster-dressing is applied, and the patient allowed to use the foot within the limits of pain from the second day. The plaster may need to be renewed as the swelling recedes.

3. In the severe form, where there is extensive rupture of the ligaments, much contusion, and extravasation of blood into and about the joint, the treatment is the same as just described for forty-eight hours, but the limb had better be placed on a splint. The splint is removed daily and a warm bath given with massage and gentle passive motion by the medical man, care being taken that the ruptured ligaments are kept in apposition, as in a sprain about the external malleolus the foot is kept slightly everted.

This procedure is followed until the swelling has receded to a great extent, which may take from one to two and a half weeks. Then the adhesive plaster-dressing is applied, reinforced by one or two long strips like a stirrup, extending from below the knee on the inner side of the leg beneath the heel, over the outer malleolus, and finishing near the head of the fibula.

The patient is urged to use his foot some every day within the limits of pain. The plaster may be renewed as the swelling recedes —and the last dressing is generally allowed to remain until it loosens and comes off itself. Recovery is complete in five or six weeks.

The advantages claimed for this plan of treatment are: Early use of the foot, and consequent saving of the patient's time. Relief from pain and assurance of security, for the applied plaster furnishes support to the injured ligaments just where it is needed. Early disappearance of swelling, for the use of the foot and pressure of the dressing supplies the place of massage and passive motion. The ligaments are held in accurate apposition, and so secure and proper healing is assured.

Discussion.

Dr. F. N. G. Starr said the reader is to be congratulated first upon the choice of subject, and, second, upon the manner in which he dealt with it.

Many years ago the speaker used a large amount of wool tightly bandaged for 24 hours, and then applied what is now called the Gibney adhesive plaster dressing. The great thing is to avoid too prolonged rest, and the next most important point is to avoid the possibility of flat-foot following.

The chronic untreated cases may give more trouble, but may be helped materially by the use of the hot air bath, followed by massage and subsequently by strapping.

Dr. G. E. Armstrong (Montreal), expressed his appreciation of the thorough and carefully prepared paper. The treatment of these cases depended, first, upon a careful diagnosis. If only a strain of tendons and ligaments, rest for a few hours or days, according to the severity of the lesion. The application of ice inhibited swelling and effusion into the joint by lessening the blood supply through stimulation of the vaso-motor nerves. Later on heat applied locally promotes the removal of the swelling and effusion by dilating the blood and lymph vessels.

Another valuable aid is fixation in the normal position during the acute stage.

Of the value of strapping as practised by Dr. Gibney and Mr. Carter, it is of very great value. The strips should be so applied as to support the strained and injured tissues. In one case they should be applied on the inner side and in another on the outer side.

The removal of fluid from the joints, which has resisted other methods, by aspiration is desirable. The patient should use the joint as early as he can do so without pain.

Dr. Thos. Hugh Balfe (Hamilton). In cases of sprains of ankle, it is always important to have complete rest and ice locally for the first 24 hours and firm bandaging, preferably by elastic bandage. It is also well to start passive motion early, with hot bathing, etc., to promote absorption of effusion into joints and to avoid adhesion of joint. I think it is well, if there is much effusion or hemorrhage, to aspirate, or if this is not done, not to allow the patient about too soon, and start early massage.

Dr. Gibney complimented the reader of the paper on the excellent pathological detail, especially the point he made on the protrusion of a bit of torn ligament into the joint, thus explaining the persistent pain sometimes found.

He called attention to the necessity of conducting the case to an absolute cure, with complete restoration of function.

He took issue with one of the speakers on the statement he made about the necessity for rest for a week or ten days, believing that such a plan would result in impairment of function.

He called attention to the importance of an X-ray as a valuable aid to diagnosis, claiming that if a fracture or dislocation were thus eliminated in the diagnosis, that mild, medium and severe sprains were all amenable alike to the strapping treatment.

LATERAL SINUS THROMBOSIS AND CEREBELLAR ABSCESS.*

By J. P. Morton, M.D., Hamilton, Ont.

Our purpose is to compare two cases one of lateral sinus thrombosis with one of cerebellar abscess.

These cases were under our care at the same time and offered us opportunities for contrast. We found it difficult to steer ourselves through them without mistakes.

The lateral sinus case was in a man of 45 years, who had suffered from right chronic otorrhoea for three years. He was well nourished, of decidedly lymphatic temperament, and was a very heavy drinker.

When we saw him first he was in bed with a T. of 101 degrees and P. 110. He was not complaining much, and his wife thought he was much worse than he pretended to be. He seemed dull, but had been out on a spree for two or three days before. He looked very sick to us and was perspiring heavily. There were no pupillary disturbances. He was constipated, with furred and coated tongue. Slight tenderness was present over mastoid very high up. There was no sagging of walls, and a perforation through Shrapnell's membrane seemed to be plugged with dried matter.

We immediately enlarged this opening down as far as meatal floor and curetted the middle ear and otic, which seemed filled with cholesteatomatous substance, and there seemed to be very little free matter. During the next three days he was much better, T. being 99.5, the ear-ache and tenderness over mastoid disappeared. We used ice over mastoid. On fifth day his temperature rose to 101 and he was perspiring profusely. Mastoid tenderness was very difficult to elicit. He seemed drowsy, although in this connection you must remember his natural apathetic condition and his alcoholic condition. He answered intelligently, but slowly. We sent him to the hospital and watched him for two days. Perspiration continued to be profuse; his temperature went to 103.5 on second day in hospital. He seemed to be duller mentally. There was twitching of facial muscles. No pupillary disturbance and fundus normal. No tenderness in neck over internal jugular vein. There was now profuse discharge from middle ear, but if there had been tenderness over mastoid he now would admit of no more on the right than on the left. This was very disconcerting, and the diagnosis was between intercranial abscess and lateral sinus trouble. Operation revealed a very much sclerosed mastoid, a middle ear and antrum with well-formed cholesteatomous formation. On uncovering the sinus, we found a discolored dura, no pulsation of vein, the walls were not smooth or yielding to touch. An incision 1-4 inch long brought no bleeding, and instead pus was found in sinus and behind it. We extended the incision to 1 inch in length, and by means of a blunt curette endeavored to secure bleeding from above and below. We were successful at the torcular end, but the bulbar end, which we would rather have had bleed, remained closed. We now proceeded to excise the jugular from clavicle to above the entrance of facial vein, but our anaesthetist informed us that the patient was in very bad condition and asked to be allowed to stop anaesthetic.

---

* Read at annual meeting of Ontario Medical Association at Hamilton.

Temperature remained normal for two days and mental condition was improved. On third day after operation T. rose to 112 degrees, with profuse perspiration. The nurse said she had "never seen such sweating." In evening T. dropped to 99. This seemed to indicate severe systemic infection from internal jugular, and was shown even more distinctly on sixth day, as T. went to 105 in morning and dropped to 97 at night. We advised removal of internal jugular very persistently, but one of us as a consultant advised against this, and so it was not done. During the next week the patient was very sick. The ear was dressed each day; no syringing was done. The T. dropped to 96 and 97, and this seemed to predominate, but now and again it would rise to 104, 105, and once to 106. He lay on his left side and would not turn to right. Cerebration was very slow, and often he would never answer. He seemed to be very deaf. No aphasia. Pupil on right was dilated slightly, and they both reacted very sluggishly to light and accommodation. He felt dizzy. There was marked twitching of facial muscles, with ptosis of right side. Fundus was normal. The muscle power seemed normal. Slight nystagmus was present when he looked to left side. Urine normal, and blood count showed leucocytosis.

We were pretty sure the patient was going to die. We warmly discussed the probability of brain abscess, and one of us advised exploring for cerebellar abscess. Weight of opinion was against this, chiefly for three reasons:

1. The lateral sinus condition was known to be so bad that it would account for the condition without supposing the other.
2. Absence of optic nerve trouble.

3. The T. did not remain subnormal, but rose every now and again to as high as 106. This was a very important deciding point.

4. Indefiniteness of what cerebellar or cerebral symptoms there were. Nystagmus was only found on having patient look to left for quite a while, and might be due to exhaustion. Slight pupil dilation might be due to his always lying to left side; I have read that this occurs. (In *Allbutt*, System of Medicine.).

His alcoholic condition and natural apathy, with the toxine, would easily account for his sluggish pupil reflexes and his dull mental condition and the poor reflexes, knee, elbow, Babinsky, etc. If his T. had stayed subnormal, operation would have been done.

Extra dural abscess was ruled out because of the freedom with which we opened things up at time of operation. The tegmen tympani was removed and no abscess could have been near the sinus without having been opened; in fact, there was an extra dural abscess opened; it lay around the sinus. We were correct in our judgment, for the patient gradually improved, and is drinking as hard as ever to-day.

Permit me to say that, although the internal jugular was not excised in this case, some of us believe that the patient was allowed to run an unjustifiable risk.

Our second case was in a child of fifteen, and when first seen she had a typical right suppurating mastoid. T. was 105 when we operated, showing very extensive bone destruction, as the case had been badly neglected. We uncovered 3-4 inch of lateral sinus and found it normal. The T. was normal for four days after the operation, and then for three days it went to 99, 100, 101. The child seemed to be getting dull, although when its parents came it seemed as bright as ever.

During following week we noticed these points: T. went to normal, with slight variations, and then to subnormal, with slight variation, but it never went above 99. The child always wanted to turn on its left side and keep its right cheek up. If turned in any other position she would immediately turn back, and there seemed to be retraction of the neck muscles, but this was probably due to action of opposing sterno mastoid, the right muscle now having no mastoid attachment. One of us made the diagnosis of meningitis, but this was ruled out on account of T. and mental condition. There was no nystagmus, even in long trials to either side. No pupillary disturbances. No fundus indications. No aphasia. No vomiting, except once on eating some sweets. Severe diarrhoea. Muscles of right arm were weaker than those of left. Leg muscles equal in strength. Cerebration was undoubtedly slow.

No profuse perspiration. She felt like turning around and could hardly stand up. When we handled her she was very irritable and wanted us to go away, and would cry. All reflexes were exaggerated, chiefly on right side. There were no paralyses, although the eye muscles seemed slow in action. Sensation was normal, although it always elicited irritability. Different diagnoses were here made:

Lateral sinus thrombosis.

Cerebellar abscess.

Temporo sphenoidal abscess.

Extra dural abscess.

Meningitis.

These were held to by different consultants.

We ruled out some of these as follows:

Lateral sinus thrombosis was ruled out because there was no rise in temperature after it became subnormal, and there was no profuse perspiration.

Extra dural abscess, on account of expectation that it would have found exit at site of operation.

Meningitis was ruled out because of continuous subnormal temperature and absence of Kernig's sign, no crying out and recognition of neck retraction as being due to antagonistic sterno mastoid action.

This left temporo sphenoid abscess and cerebellar abscess to trouble us. We decided in favor of cerebellar abscess for the following reasons:

1. Age of patient; 10—20 most common age.

2. Forced position in bed; right side persistently up; curled up in bed.

3. Marked paresis of upper limb on same side as lesion.

4. Exaggerated reflexes on right side.

5. Rotation; fall away from the lesion.

Operation showed a large cerebellar abscess. Patient improved for a few days after operation and then all the symptoms of cerebellar abscess and purulent meningitis became very prominent and patient died. Post-mortem showed diffuse purulent meningitis.

Physician's Library.

Poisoning By Arsenuretted Hydrogen or Hydrogen Arsenide. Its Properties, Sources, Relations to Scientific and Industrial Operations, Symptoms, Post-Mortem Appearances, Treatment and Prevention. With a record of one hundred cases by different observers. By JOHN GLAISTER, Doctor of Medicine of the University of Glasgow, etc., etc. Price, 5 shillings net. Edinburgh: E. & S. Livingston.

From various sources the author has compiled the histories of several cases, which with those occurring under his own observation, number one hundred and twenty. As there has not been, prior to this, any single volume on the subject, this may be accepted as the standard to go by and will make a distinct addition to Forensic Medicine and Toxicology.

Borderland Studies. Miscellaneous, Addresses and Essays pertaining to Medicine and the Medical Profession, and their Relations to General Science and Thought. Volume II. By GEORGE M. GOULD, M.D. Price, $1.50. Philadelphia: P. Blakiston's Son & Co.

As the sub-title implies this is a collection of essays, lectures and addresses which from time to time have been put forth by that energetic and forceful writer, Dr. Gould, who is well and favorably known to the medical profession of Canada. It forms a unique volume in medical literature and will be read with great interest.

Medical Gynecology. By S. WYLLIS BANDLER, M.D., Adjunct Professor of Diseases of Women, New York Post-Graduate Medical School and Hospital. Octavo of 675 pages, with 135 original illustrations. Philadelphia and London: W. B. Saunders Company, 1908. Cloth, $5.00 net. Half Morocco, $6.50 net. Canadian Agents: J. A. Carveth & Co., Limited, Toronto.

There were surgeons and gynecologists who not so very long ago denied there was such a thing as medical gynecology. The author of this, however, cannot be classed with those doubting Thomases. He has brought forth a book of some 676 pages, which represents a grouping of his clinical lectures, with some elaborations. The opening chapters deal chiefly with the methods employed in medical treatment and this part of the work is elaborately illustrated. Of course a good part of the book deals with those conditions requiring the surgeon's knife, but throughout the work operative procedures are kept in the background and only brought into view as a last resort. We believe the work will receive the undoubted endorsation of the general practitioner.

The Works of Voltaire. In our front form pages will be found an advertisement which sets forth pretty completely details with regard to this very fine set of books. On the title page we read—A Contemporary Version—A Critique and Biography, by the Rt. Hon. John Morley—Notes by Tobias Smollett, revised and modernized—New Translations by William F. Fleming and an Introduction by Oliver H. G. Leigh. The work is complete in 43 volumes and will make a very handsome and acceptable addition to all medical libraries in this country. There are all told 168 designs, comprising reproductions of rare old engravings, steel plates, photogravures and curious fac-similies. The work is put forth by the craftsmen of the St. Hubert Guild, Werner & Co., Akron, Ohio.

Contributions to the Science of Medicine and Surgery. By the Faculty in Celebration of the Twenty-fifth Anniversary, 1882-1907, of the founding of the New York Post-Graduate Medical School and Hospital.

This is a handsome paper-bound volume of 485 pages. The frontispiece is a fine portrait of D. B. St. John Roosa, M.D., LL.D., and the opening pages are devoted to a short sketch of his life. The book is a volume of original articles, all of exceeding value and great interest covering a wide range of subjects.

The Canadian Medical Protective Association

ORGANIZED AT WINNIPEG, 1901

Under the Auspices of the Canadian Medical Association

THE objects of this Association are to unite the profession of the Dominion for mutual help and protection against unjust, improper or harassing cases of malpractice brought against a member who is not guilty of wrong-doing, and who frequently suffers owing to want of assistance at the right time; and rather than submit to exposure in the courts, and thus gain unenviable notoriety, he is forced to endure black-mailing.

The Association affords a ready channel where even those who feel that they are perfectly safe (which no one is) can for a small fee enroll themselves and so assist a professional brother in distress.

Experience has abundantly shown how useful the Association has been since its organization.

The Association has not lost a single case that it has agreed to defend.

The annual fee is only $3.00 at present, payable in January of each year.

The Association expects and hopes for the united support of the profession.

We have a bright and useful future if the profession will unite and join our ranks.

EXECUTIVE.

President—R. W. POWELL, M.D., Ottawa.
Vice-President—J. O. CAMARIND, M.D., Sherbrooke.
Secretary-Treasurer—J. F. ARGUE, M.D., Ottawa.

SOLICITOR.

F. H. CHRYSLER, K.C., Ottawa.

Send fees to the Secretary-Treasurer by Express Order, Money Order, Postal Note or Registered letter. If cheques are sent please add commission.

PROVINCIAL EXECUTIVES.

ONTARIO—E. E. King, Toronto; I. Olmsted, Hamilton; D. H. Arnott, London: J. C. Connell, Kingston; J. D. Courtenay, Ottawa.

QUEBEC—H. S. Birkett, Montreal; E. P. Lachapelle, Montreal; J. E. Dube, Montreal: H. R. Ross, Quebec; Russell Thomas, Lennoxville.

NEW BRUNSWICK—T. D. Walker, St. John; A. B. Atherton, Fredericton; Murray MacLaren, St. John.

NOVA SCOTIA—John Stewart, Halifax; J. W. T. Patton, Truro; H. Kendall, Sydney.

PRINCE EDWARD ISLAND—S. R. Jenkins, Charlottetown.

MANITOBA—Harvey Smith, Winnipeg; J. A. MacArthur, Winnipeg; J. Hardy, Morden.

NORTH-WEST TERRITORIES—J. D. Lafferty, Calgary; M. Seymour, Regina.

BRITISH COLUMBIA—S. J. Tunstall, Vancouver; O. M. Jones, Victoria; Dr. King, Cranbrooke.

Dominion Medical Monthly

And Ontario Medical Journal

EDITORS:
GRAHAM CHAMBERS, B.A., M.B.   WALTER McKEOWN, B.A., M.D.

ASSOCIATE EDITOR:
T. B. RICHARDSON, M.D.

MANAGING EDITOR:
GEORGE ELLIOTT, M.D.

Published on the 15th of each month. Address all Communications and make all Cheques, Post Office Orders and Postal Notes payable to the Publisher, GEORGE ELLIOTT, 203 Beverley St., Toronto, Canada

VOL. XXXI.   TORONTO, SEPTEMBER, 1908.   NO. 3.

COMMENT FROM MONTH TO MONTH.

Canadian Medical Association—Amendments to By-Laws By Executive Council. Under "Officers and Committees," Art. 1, sec. i., all the words after Association are struck out. Under Art. III.—"Reference Committees"—Sec. v., Committees on Reports of Officers was amended to read: Committee on Medical Education. Art. I.—Committees—sec. vii was changed to read as follows: The Committee of Arrangements shall have power to add to its numbers and shall name two of the Reference Committees, as well as the Chairmen thereof, namely, 1—A Committee on Sections and Section Work. 2—A Committee on Credentials. Art. III, Sec. I—Reference Committees, was amended to read as follows: The Executive Council shall at its first meeting name the following six Reference Committees and appoint the Chairmen thereof. 1—A Committee on Medical Legislation. 2—A Committee on Medical Education. 3—A Committee on Hygiene and Public

Health. 4—A Committee on Amendments to the Constitution and By-Laws. 5—A Committee on Reports of Officers. 6—A Committee on Necrology. Then under "Scientific Work"—Art. I—General Meetings—Sec. 2., the first sentence thereof read as follows: A General Meeting or Session shall be held at 10.30 a.m. of the first day, and at such other times as shall be decided by the Committee of Arrangements.

The Calmette Tuberculin Test. In a recent article in the *Journal of the American Medical Association* Dr. Harry C. Parker draws the following conclusions regarding this very interesting test for incipient tuberculosis:

I. The Calmette ocular tuberculin test is of as great diagnostic importance as any other single test.

II. A positive reaction is indicative of a tubercular focus, somewhere in the body.

III. The test is uncertain in patients under two years of age, in whom the cutaneous test of Von Pirquet is most certain.

IV. The test fails in advanced cases of tuberculosis but there is little need of it here.

V. The initial instillation should be preferably under one per cent. strength in order that severe inflammatory conditions may not follow. If necessary to make the second and stronger test, the eye not previously used should be selected.

VI. The concensus of opinion seems to be against using the test in an eye not wholly normal.

VII. After complications have occurred from its use but have entirely cleared up in a varying length of time and are not so frequent when the initial test is made with a solution under one per cent., recent investigations have shown a greater number of ophthalmic affections due to tuberculosis than formerly supposed. And in the Calmette reaction we have a simple means of differential diagnosis, which should be thoroughly tried.

VIII. The ocular reaction is especially valuable for ascertaining the tuberculous nature of cases of phlyctenular keratitis and conjunctivitis episcleritis and scleritis, chronic iritis, iridocyclitis, interstitial keratitis and chorioidities.

IX. A one per cent. solution of Koch's Old Tuberculin is nearly as good as the Calmette solution for diagnostic purposes.

X. The test in the hands of various observers has given such uniformally excellent results that its value is practically assured.

British and Canadian Medical Journals, and consequently British and Canadian practitioners have taken very little interest in the campaign which for the past few years has been going on in the United States and which is quite commonly referred to as "The Great American Fraud." In the June issue of the *Critic and Guide* are some striking comments on the subject. One is entitled "Do Physicians Prescribe Nostrums? or, Bok's threat to annihilate the Medical Profession." Another deals with the proteid iron preparations of the National Formulary, or the N. F. propaganda, with some queries and conclusions. To those who have been using and getting the good results for years from many well known proprietary preparations, which have not been admitted into the National Formulary, it is difficult to understand the just limitations of prescribing. Probably there will be many who would agree in affirming their adherence to what a preparation will do than to what it exactly is. Supposing for instance we did know the exact proportions of all these preparations, who would remember them, and who would not go on prescribing them for the results got, rather than for the ingredients they contained? Preparations which are put forth by honorable and responsible manufacturers should not be unjustly and indiscriminately condemned, because the age has demanded the best skill of the pharmacist, which is not always to be got even from the physician and local druggist combined. When the physician prescribes he trusts to the honesty of the druggist that his prescription is properly and correctly dispensed. If a manufacturing pharmacist places before us a preparation which will produce results, why consider he is always dishonest? If we do not get the results in a given patient we soon abandon that preparation, as we would one we knew the exact ingredients of. Reputable and responsible houses dealing directly with the profession should not be classed with all the ordinarily denominated nostrum-vendors catering to the public at large. If a friend in the profession had evolved a prescription which would do the trick in a certain disease, and would not give it to us, but would supply the medicine, would we be likely to accept it when we knew that it would produce in our hands the same results it did in his? But, of course, many will say he is not at all ethical in keeping secret what will do mankind good. But he is probably doing the best by himself, his family and his own practice. Probably if physicians in this respect took a leaf from the book of the manufacturing pharmacists they would better profit thereby. We believe in the survival of the fittest, and if a proprietary is not going to produce results, it will fail; as long as it does so, the physician is going to use it.

The Montreal Medical Journal in its August issue delivers a stinging rebuke to Canadian charity, christianity, philanthropy and civilization. It was born of a case such as this which we have clipped from the *Montreal Star*: C. M. died this morning at the Grace Dart Home on St. Antoine Street, of which he had been an inmate for about a week. It will be remembered that the unfortunate man was found some days ago lying in a field in an unconscious condition and evidently dying of tuberculosis. The city hospitals, however, refused him admittance, as their rules prevent them accepting patients of this class. The only thing to do, then, was to send him to jail. He was, therefore, brought before Recorder Weir for this purpose, but the Recorder interested himself in the case and succeeded in having him taken into the Grace Dart Home, where he died this morning.

With fine sarcasm the editorial pen tells how we can buy a battlefield, maintain an Olympic team in England at a cost of some $18,000, and boast of the great wheat fields of the last great West, yet the Dominion Government with its lavish expenditure cannot find more than a paltry $5,000 per annum to give to the National Organization for the Prevention of Tuberculosis. Nor even can that self-same Government act quickly in getting a leader to prosecute a campaign against all forms of contagious and infectious diseases. But in the matter of the non-admission of this class of patient into the hospitals of Montreal, the Government is not to blame. It is surely up to the physicians of that great metropolis, there as elsewhere, physicians who are at no time afraid to attend patients suffering from all forms of dangerous diseases, to educate the people that their hospitals must do their duty by the sick, until such times as there are proper institutions established to take care of them. Surely wings can be set apart in all hospitals for these unfortunates that it will not be necessary for them to take to the woods or the fields to find a resting place for their tired bodies. Imagine having to send a tuberculous patient to jail! It makes one shudder. It is quite as bad or worse than sending people of unsound mind to the same place. But Toronto does not do that nowadays.

Clean Milk. At the International Congress on Tuberculosis, which is to be held in Washington from September 21st to October 12th, the New York State Committee of that Congress is to have a Clean Milk Exhibit. It is to consist of photographs of dairies, statistical charts and Petri plates of the bacteriology of milk and illustrations of tuberculin tests for cattle; will have a small working dairy with tuberculin tested cow, skilled attendants, sanitary utensils, shipping cases and all sanitary appliances for the marketing of clean milk. On cardboards will be printed a series of aphorisms regarding clean milk. There will also be represented graphically the food value of milk as compared with other foods, as well as charts illustrating the general sources of infection of milk with tuberculosis germs. The question of a pure milk supply is before the world as it has never been before. Medical Societies in this, in the old land and in the United States are appointing special committees on the subject, known as Milk Commissions, to take the matter in hand to influence Governments, Federal, Provincial and Municipal therein. From the *Home Journal*, an interesting journal published in Toronto, we learn that a good start has been made this year in pure milk for Toronto's poor children. From the cow to the consumer this product, and one of the best of foods, must be carefully produced and its production watched all along the line. Towards this end we would suggest to the Canadian National Exhibition that they join in the movement for a clean milk supply, as that body, it seems to us, have it in their power to educate the masses of the people, especially the farmers and the producers, more than any other at present in existence. They have already a Dairy Process Building. They have the accommodation for cows. They have the hundreds and thousands of farmers every year in attendance; they have the consumers every year in attendance, all of whom would be sure to take the liveliest interest in the demonstrations which they could give in the production and handling of a clean milk supply. An exhibit of this character for two weeks every year at our National Exhibition would be sure to prove a profitable and popular feature.

News Items.

OUR Associate Editor is a very happy man just now. This time it's a boy.

DR. INGERSOLL OLMSTEAD, Hamilton, is spending a few months in Germany.

DR. JOHNSON, of Millbank, Ont., has been paying a visit to friends in Toronto.

DRS. R. W. Bruce Smith and J. N. E. Brown, Toronto, have returned from a European trip.

DR. PATRICK C. MURPHY, Tignish, P.E.I., has been elected President of the Maritime Medical Association.

DR. F. MONTIZAMBERT, Director General of Public Health, has been inspecting quarantine stations on the Pacific coast.

DR. CLARENCE L. STARR, Toronto, announces he will hereafter confine his practice to general and orthopoedic surgery.

DR. ALGERNON WOLVERTON, Hamilton, who was stricken with paralysis on the *Victorian,* is now in a Montreal hospital.

DR. A. E. ROBERTSON, of the resident staff of the General Hospital, Toronto, has left for a three months' sojourn in Scotland and England.

DR. BRICK, of Palermo, probably the oldest medical practitioner in Halton County, was stricken with paralysis last week and is in a critical condition.

PROF. DR. LANDOUZY, Dean of the Faculty of Medicine, of Paris, will pay a visit to Toronto, shortly after his arrival in New York on the 17th September.

Dr. Ed. Wilford, of Blyth, has left for Edinburgh, where he will pursue his studies before entering on his work as a medical missionary in China.

Dr. R. D. Rudolf, Toronto, has been appointed Professor of Therapeutics in the University of Toronto, and has become a consulting physician.

Dr. John McCulloch, who recently disposed of his practice at Janetville, leaves shortly for Scotland, where he will take an advanced post-graduate course at Edinburgh.

"The Great Fight," the title of one of the poems in a collection of poems and sketches by the late Dr. W. H. Drummond, is in press and will soon appear. The book will also contain a biography, written by the habitant poet's wife.

Montreal will hereafter have twelve medical school inspectors instead of thirty as formerly. They will be on duty during the school year, and each man will be responsible for his district.

Dr. Edith Beatty, who has been appointed Superintendent of Grace Hospital, to succeed Miss Patton, who has resigned, graduated in medicine at the University of Toronto in 1905, and since then she has practised her profession in Guelph.

Dr. J. Curry Smith, one of the best known physicians in Simcoe County, died on July 30th of typhoid at Barrie, after three days' illness. He was attacked with appendicitis and later with typhoid. He was a prominent Mason and a member of the School Board.

Dr. George Hodge, Professor of Clinical Medicine in the Western Medical School, and one of the best known physicians in Ontario, died at St. Joseph's Hospital on August 26th from an attack of pneumonia. Dr. Hodge was 68 years old, and graduated from Queen's University in 1870.

The American Public Health Association met in Winnipeg on the 25th, 26th and 27th of August. Seventy-three new members were added to the roll. Several Canadian practitioners took part, including Drs. P. H. Bryce, Chas. A. Hodgetts, Roberts, Hamilton; Amyot, Toronto; and W. T. Connell, Kingston.

For COUGHS and
THROAT IRRITATION

PINOCODEINE

"FROSST"

Each fluid drachm contains:—Codeine phosphate ⅛ gr. combined with Pinus Strobus, Prunus Virginiana, Sanguinaria Canadensis, Populus Balsamifera and Chloroform.

As a routine expectorant, it is the same reliable product that has had the support of the profession for the past eight years.

STOPS COUGHING,
ALLAYS IRRITATION,
ASSISTS EXPECTORATION

Perfectly safe with patients of any age.

For GRADUAL or
SUDDEN HEART FAILURE

Elixir Digitalin Co. "Frosst"

Each fluid drachm contains:—Digitalin 1-100 gr. Nitroglycerine 1-100 gr. Strychnine 1-50 gr.

The original product that has created the demand for this energetic stimulant.

CHARLES E. FROSST & CO.

MONTREAL, CANADA

Among the probable visitors to Toronto are, Dr. Triboulet, of Paris, Prof. Calmette, Director of the Pasteur Institute at Lille, Prof. Arloing, of Lyons; Pro. Courmont, of Lyons; Prof. Tissier, of Paris; Prof. Crespin, of Algiers; Mlle. Chaptal, Philanthropist, of Paris; M. Lenne, of Paris; Viot Bey, of Cairo; Dr. de Fournier, of Paris; Dr. Leon Bernard, of Paris; M. Augustin Rey, of Paris, and others.

British Columbia Medical Association met in Vancouver on the 20th and 21st of August, under the Presidency of Dr. J. M. Pearson, Vancouver. Dr. Jos. Price, Philadelphia, was present and took part in the discussions. Amongst the papers, all of which on the word of the President, were of a high order, those which attracted the keenest discussions were those on the Medical Inspection of Schools, by Dr. W. D. Brydon-Jack, Vancouver; a Plea for the More Rational Conception of Appendicitis, by Dr. R. V. Dolbey, Victoria; Relation of the General Practitioner to the Inebriate, by Dr. G. H. Manchester, New Westminster; Pure Milk, by Dr. Arthur L. Kendall, Vancouver, and Selection of Cases for Sanatarium Treatment, by Dr. R. W. Irving, Medical Superintendent of the Tuberculosis Hospital at Tranquille, B.C. Dr. C. J. Fagan, Provincial Health Officer, was elected President; Dr. J. H. Hogle, Nanaimo, Vice-President, and Drs. J. D. Helmcken, Victoria, and R. Eden Walker, New Westminster, re-elected Treasurer and Secretary.

Dominion Medical Monthly

And Ontario Medical Journal

Vol. XXXI. TORONTO, OCTOBER, 1908. No. 4.

Original Articles.

MISSED ABORTION.

By R. Ferguson, M.D., London.

Medical literature upon the subject of "Missed Abortion" is exceedingly scant. I presume this is accounted for by the comparative rarity of its occurrence. In my own practice of eighteen years I have had, to my knowledge, three cases. I do not know whether this is above or below the average frequency.

Case 1.—The first of my cases dates back to 1895. The patient was a multipara, aet. 30 years. She menstruated regularly until October, when her menses, which should have recurred October 11th, did not appear. At Christmas (ten weeks after she missed her period) she had a sharp uterine hemorrhage, but did not call a doctor. The blighting of the ovum probably occurred at this time. After this she had a slight flow at irregular intervals, consisting, as she described it, of menstrual fluid (improbably so) and blood clots. On May 11th, about five months after the period of "missed abortion" probably began, she had another rather profuse hemorrhage, after which I was called in. I found the os dilated and only slight oozing of blood when I arrived. The following day, after removal of the vaginal gauze packing, a body could be seen presenting itself at the external os. It was easily removed with a pair of uterine dressing forceps. It consisted of a mass 2 1-2 inches in length, rolled upon itself. Unfolding it, in the centre, there was a small membrane, but the embryo had become absorbed or extruded. The patient made an uneventful recovery.

Case 2.—Mrs. B., nullipara, 30 years of age, five years married, anaemic, menses regular, but scant; menstruated June 2, 1902, then

---

* Read at Ontario Medical Association, Hamilton, May, 1908.

menses ceased; during July and August she vomited persistently, after that the vomiting subsided, amenorrhoea continued, the tension and size of the breasts increased, colostrum was present, the nipple areola grew darker, and discoloration of the mucous membrane of the vagina and vulva were marked. October 1st, four months after menstruation ceased, after a heavy day's work, patient complained of feeling chilly and nervous, was nauseated and dizzy. I found the pulse rapid, but no elevation of temperature. Slight pain in the pelvic region, but not intermittent. Abdominal muscles were rigid, there was no bloating and no hemorrhage. I gave her a hypodermic of morphia sulph., and in a day or two she was up and around again. I think the death of the ovum occurred at this time. Thereafter she was not herself. She complained of anorexia and general malaise, while considerable despondency was apparent, and the former signs of pregnancy gradually disappeared. On February 3rd, eight months after the last menstrual period, and four months after the supposed death of the foetus, the patient sent for me, complaining of uterine pains, not severe or regular, however, and accompanied by nausea and ringing in the ears. She said she had a feeling of impending death, which she could not account for. On bimanual examination, I found the uterus only slightly enlarged, and the os neither dilated nor much softened. There was a slight sanious discharge from the uterus, but no hemorrhage. As there was no temperature, and no urgency, I waited for 48 hours, in expectation that the uterus might empty itself, if any foetal remains were retained. As no expulsion took place in the meantime, the patient was prepared, and under an anaesthetic the uterus was relieved of its contents, which consisted of an elongated mass, 3 inches in length and 1 inch in breadth. The decidual membranes were wrapped round a partly mummified foetus. The patient soon regained her usual health, none too rugged at the best, and fortunately has not become pregnant since.

Case 3.—Mrs. H., aet. 28 years, mother of one child 2 years of age. No history of miscarriages or abortions. Well nourished. Last regular menstruation January 6th, 1907. Following this date she had the early symptoms of pregnancy. I visited her by request on March 13th, about ten weeks after menstruation ceased. She had passed a restless night, with nausea and dizziness, but no hemorrhage, and no uterine pains. At this time, and throughout the entire history of the case, the most persistent symptom complained of was a sensation simiar to the aura which so often precede an epileptic attack. I was next called May 4th, owing to a severe uterine hemorrhage, which alarmed the patient, four months after her menses ceased. The uterus was enlarged and contained a fibro-myoma the size of an orange in the left antero-lateral wall, and another one-quarter that size more anteriorly. The cervix was soft and dilated. The vaginal and breast symptoms of pregnancy were quite marked. After a week's rest in bed the patient got about as usual. The death of the foetus apparently took place at this time, as there was no further enlargement of the abdomen, and the vaginal and breast symptoms disappeared. The aura continued as before, the abdomen felt distended at times, slight hemorrhage occurred at intervals. On August 30th, four months later, she had another rather copious hemorrhage, and I was again sent for. On September 2nd I had her taken to the hospital, and removed under anaesthesia what appeared to be a four months' placenta; no foetus was found, the membranes were ruptured, but only partially absorbed. The structures were undergoing maceration. The patient made a speedy recovery, and has menstruated regularly the last three months, without dysmenorrhoea or hemorrhages, although the flow is very profuse and recurs every three weeks, due, of course, to the presence of the fibro-myomata.

In reviewing the history of these cases, I observe that the period of "missed abortion" was of about the same duration in all three, viz., three to five months. In one case expulsion took place naturally, in the other two artificially.

The first and last cases had a history of uterine hemorrhage; the second case had no such history throughout. This case was a nullipara, the only case I have found recorded in which "missed abortion" took place in a nullipara. It was that of a patient with a debilitated constitution. Case 1 and 3 were patients ordinarily in robust health. Case 3 was complicated by a fibroid tumor, which, doubtless, was a factor in inducing the hemorrhage, which blighted the ovum. This case is still a problem on my hands. Notwithstanding the presence of a multiple fibroid, and the frequent and profuse menstruation, am I justified in letting the case alone while the health is not further impaired? She is a young woman, and I do not feel warranted in unsexing her, unless indications become more urgent than at present. Am I pursuing the best course? Further, in the event of her unfortunately becoming pregnant again, should pregnancy be interrupted early or allowed to go on? Although these questions are only incidental to my subject, I would like an expression of opinion upon them.

But to return in conclusion to the subject of "missed abortion," I am unable to throw much light upon its etiology. Lack of sensitiveness, or irritability of the uterus, to the dead ovum is a factor, whether the only one or not I cannot say, in the causation of "missed abortion." This lack of uterine susceptibility is rare. The tendency of the average uterus is to part easily with its contents, especially at certain recurring periods during pregnancy.

The interference with the foetal circulation incidental to threatened abortion from hemorrhage I take to be the most frequent cause of the death of the ovum. The large majority of the cases which I have found recorded give a history of early pregnancy, then one or more hemorrhages, followed by the arrest of the symptoms and development of pregnancy—without expulsion of the uterine contents. The knotting of the umbilical cord or the coiling of the cord about the neck of the foetus may sometimes be a cause of its death. In one of my cases, and some of those which I found recorded, there is no history of hemorrhage, merely a history of feeble health, normally as well as during pregnancy. The maternal constitution is apparently unequal to the added task of sustaining the life of the foetus, and it dies from inanition. But, while these and various other reasons might be given to account for the death of the ovum, it is much more perplexing to account for its retention by the uterus, contrary to the normal habit of that organ. None of the authors to which I have had access discuss the etiology, much less give any satisfactory reason for its occurrence, and to myself the relative non-irritability of the uterus in exceptional cases is the only reason that appeals to me.

It is noticeable how generally no trace of the foetus is found, the ovum having either been absorbed or casually expelled. The placenta usually remains intact, and is found intimately adherent to the uterus. Mummification only takes place when the membranes have remained unruptured. If the membranes are ruptured or absorbed, maceration and latterly putrefaction takes place. This happens because the vernix caseosa is no longer secreted for the protection of the foetus.

I have not gone into the subject of differential diagnosis in this paper, and I have not made any distinction between "missed abortion" and "missed miscarriage," nor have I discussed that still rarer occurrence, "missed labor."

I am inclined to think "missed abortion" occurs oftener than is usually supposed, as doubtless many cases are not detected, since nature sometimes empties the uterus spontaneously in cases of "missed abortion," the expelled product never coming under the observation of doctor or nurse. As there is no known limit to the duration of "missed abortion," the subject is one not only of medical interest, but of moral and medico-legal importance as well.

Perhaps some of you may recall the case of the distinguished obstetrician and author, Playfair, who is said to have been mulcted in a fine of £5,000 for implicating inadvertently a family friend in a scandal, through the occurrence of an abortion ten months after her husband had left his home and wife for service in India. The case, I believe, was afterwards conceded to be a case of "missed abortion," but the occurrence is said to have blighted the after life of Dr. Playfair.

EXPERT MEDICAL TESTIMONY.*

By J. J. McEvoy, Barrister, London, Ont.

At the outset let me say that I am entirely at issue with the Western judge who divided witnesses into three classes, the liar, the damned liar and the expert witness. So far as my own experience goes, my deliberate judgment is that there is no class of witness more conscientious and reliable than the medical expert. One hears in loose talk, "If you get half a dozen doctors to swear one thing, I will get you half a dozen to swear the opposite." In my experience and reading I know of no such case, although I have been concerned in several cases in which I have known such statements to be made with a pretended knowledge of the facts. I particularly recall a celebrated murder trial, on account of which, it is said, a limit was put upon the number of experts who might be called in any case, and I venture to say that if I read to you gentlemen the cross-examination of the Crown doctors and the chief examination of the defence doctors, you would not be able to say which were witnesses for the defence and which were for the Crown, speaking from the substance of the answers given, though by the form you might detect a difference. In that case there was in the totality no difference of testimony on behalf of the medical witnesses for the Crown and the defence, although the press and the public almost made a scandal of it.

There is too much thoughtless, too much prejudiced and too much malicious abuse of the medical expert witness; and there is much more ignorant than well-informed criticism of him. This is true not only in our own country, but in many other countries. I speak more particularly of Anglo-Saxon communities, where the administration of justice is based upon the common law. So far as these are concerned, one never hears abuse of the medical expert from bench or bar, and one rarely hears unfavorable criticism from either of these quarters. In my experience I think the severest criticism of the medical expert which I have known came from the members of the medical profession, and this is oftenest heard under oath from the witness box. No medical man who has had a considerable experience will fail to recall trials where what was afterwards called by the press and the public contradictory expert testimony was passed over without a single word of attack or insinuation from either counsel or the court.

---

* Read before the London, Ontario, Medical Association.

It is worth while to say at this point that the medical profession owes it to itself to treat with very great respect the opinions of its members given under oath. To begin with, it does not add weight to the evidence of a testifying medical expert to treat lightly or as ridiculous the opinion of his brother practitioner. On the contrary, much more weight is carried by the testifying witnesses recounting the circumstance that he has carefully considered the opinion of his fellow-witness, and, in spite of this and the recognized ability and standing of such fellow-witness, the testifying witness is compelled to differ. To begin with, this is polite and considerate. It predicates an understanding and thorough knowledge of the other professional brother's opinion. It eliminates all suggestion of rivalry or taking sides; it eliminates any suggestion of egotism on the part of the witness; it eliminates any suspicion of spleen or ill-will towards one whom a jury is likely to regard as a rival witness; and, lastly, it takes out of the mouth of an over-zealous cross-examining counsel many weapons of attack. Let me mention some of these last as they occur to a lawyer. To weaken a witness in the eyes of a jury it is important to show that the witness is capable of being unfair. No easier way of showing that the witness is capable of being unfair is possible than to show that he is unfair to his professional brother. He does not think his professional brother knows much, when, as often appears, he has had no opportunity of knowing of his brother's knowledge, and, therefore, allows himself to swear without much foundation; he does not think it is a very serious thing for another doctor to swear to what is, as this testifying witness puts it, plainly and evidently untrue, and, therefore, the jury will probably be led to reason that the witness himself does not consider it a matter about which a witness may very easily go wrong, and that it is not of very grave importance which way a doctor swears upon matters of the kind in hand. This is as likely to lead the tribunal to think neither witness is on safe grounds, and that it is not safe to act on either opinion. It leaves both opinions open to ridicule as being uncertain, and in many cases, where the result of the litigation turns upon the case being made out by medical testimony, this leaving of all opinions open to ridicule is sufficient for the purpose of one of the parties to the litigation.

In my humble judgment, there is nothing which has a greater tendency to bring into disrepute expert medical testimony than the lack of consideration which some medical witnesses extend to the testimony of their fellow-practitioners. Indeed, so great is the sin of the profession in this matter that it has become absolutely distasteful for medical men of high mind and character to testify at all. This should not be. There should be no higher duty in the work of the medical man than the giving of expert testimony when called upon to do so. In its nature it should not be disagreeable. This leads me to a consideration of the nature and object of expert medical testimony.

Before entering upon this important branch of the matter in hand, let me raise for examination a matter which is claiming a good deal of attention by both medical men and lawyers. It is this question: Is it the part of wisdom to retain in our system of jurisprudence the time-honored custom of seeking to get at the best result in cases requiring the assistance of medical experts by the examination and cross-examination of medical men; or would it be better to refer the part of the case requiring such assistance to a board of physicians or surgeons appointed by the court, or in some suitable way, for a majority report on the medical side of the case? I know well that a great many medical men favor the report method; and this method is not without its supporters from the bench and bar. I state the matter here because I think its consideration can be most expediently carried on while examining the true nature and character of expert medical testimony.

A further matter I wish to state here by way of clearing the ground of what I deem a common error. It is often assumed in considering this question that in the trial of actions in courts of justice exact truth can, if not always, at least generally, be arrived at. It is not so. Exact truth is not known in any science, not even in mathematical science. What we call nothing mathematically is only something infinitesimally small, but not absolutely nonexistent. Both legal science and medical science are far from being exact, yet this question is often discussed as if there was an absolute point or place which could be arrived at in each case by some process of reasoning not understood or appreciated by judge or jury or litigants, and that such point ought to be reached by such a process and accepted by the tribunal and the litigants.

Every system of jurisprudence consists in its ultimate analysis of machinery fit to determine the respective rights of citizens who cannot agree of themselves as to what their respective rights are. A law, in the sense of a law being a legal rule, is only for those who dispute. Law in this sense has no application to those who are agreed as to their rights; such are free from the law in the apostolic sense, and, while it is my settled judgment that the developed Anglo-Saxon jurisprudence as we have it now is the best means yet devised by the wit of man for settling disputes among citizens, I am also only too well convinced that it is at best only a rough machine, and its work is very, very far from being perfect. No man gets justice in our courts as the Omniscient sees justice, and no man will get such justice until we see "even as we are seen." Our scales are too crude. Justice at the most in human courts is a relative term. It is justice according to the weight or bulk of present-day enlightened opinion; and in that enlightenment of opinion I include all the Divine enlightenment we have received, no matter how communicated, whether by what is usually called Divine revelation or the slower revelation of hard human experience, which is equally Divine. The crucifixion of the "Stirrer up of Sedition" was, no doubt, "justice" in the eyes of many inhabitants of Jerusalem. Two thieves were crucified at the same time, and the world to this moment has not been shocked at the injustice, though we don't now crucify thieves. Although Divine justice is what is aimed at, let us remember these three things: That justice as administered in the work-a-day courts is justice as understood and sanctioned by the community in which we live; that Divine justice is beyond our ken; and that we can approach towards Divine justice just in as far as we get the community in which we live to understand and sanction as justice that which nearer and ever nearer approaches the Divine ideal.

If we hold in our minds these three truths they will enable us to see that, for the true good of any community, while it is important that justice should be done in her courts, that it is equally important that the justice done shall be justice that is understood and sanctioned by the community, else it is not justice to that community, and there is no hope of leading that community on to the higher and truer conceptions of justice.

Let me assume, then, that you accept the proposition that it is of very great importance in the proper and beneficial administration of justice that the litigants, or, if not the litigants, at least the disinterested members of the community, are agreed that that which is ordered by the court is justice.

Then, in the light of all this, let me come back to the discussion of the true nature and object of expert medical testimony. Its object is to enable the court, be it judge, or judge and jury, to do justice in the sense in which I have defined it—that is, justice according to the enlightened opinion of the community—and to do it in such a way as to secure the concurrence of the community that justice is done.

To enable this to be done in cases involving obscure matters not generally understood by judge, jury or community, not only must the judge and jury be enlightened, but the litigants and the community must be enlightened. If a God could be secured to decide with absolute justice every dispute as to rights between citizens, to draw in the night's darkness with unseen hand, if you will, the true dividing line along the boundary in dispute, it would not be for the betterment of that community that disputes should be so settled. Providence is all-wise and knows the true way to final right and justice.

The true function of the expert medical witness is to lay bare to the court, the litigant and the world (if the world should wish to see) those things which affect the matter in dispute, but which are not apparent to the ordinary observer; and let him do it with humility, for when he has laid bare all that even his trained perception can grasp and bring into the light, be sure that there is much more not apparent to even him that does affect the matter *in abstract justice* as seen by the Great Judge, which will never be appreciated by any human judge.

There are certain things about which there never should be any difference in any given case as between medical experts. There should always be, in substance, agreement as to what is found. There ought always to be among medical experts agreement as to what are the functions of the involved part, and there ought always to be substantial agreement as to the manner in which the functions and usefulness of the involved parts are interfered with. The only place where there is much room for difference is as to degree or extent of injury and as to probability of recovery; upon these two last points it would be strange if several medical men should agree even substantially.

A physician who proposes to give expert evidence upon any case should know his work in reference to the particular matter in hand. If he has not time or opportunity to prepare himself, he ought to refuse to testify as an expert, because it is not fair to himself, nor to the litigants, nor to the court that he should propose to speak of matters concerning which he has not taken the trouble to thoroughly inform himself. His own manhood is at stake.

Be able to give your process of reasoning. By this I mean be able to show with as much exactness as possible the very bone, muscle, nerve or organ which is injured or involved and the nature of the injury. Be prepared to explain how such muscle, bone, nerve or organ in its normal condition performs its function; and be able to explain how it is and why it is that the particular injury interferes with the proper performance of the function, in the way and with the results which all agree are present in the case.

Do not think that there is no use in explaining, "the court will not understand anyway." The court will understand all that you properly explain, and you can properly explain all that you actually know about the case. Of course, if you don't know, if what you desire to explain is still in the realm of speculation in medical science, it will not carry home. And it ought not to carry home.

The reason that many experts feel that they have not been properly understood often is that they tried to weigh in the rough scales of a human court gas, professional gas, that pours upwards —it will never tip the beam.

Sometimes one hears complaint of the rigors of cross-examination, and it is said that a court room with many unfavorable surroundings is not the place for scientific investigation. That, perhaps, is true, but a court house for trials of actions is not concerned about scientific investigation. So long as the facts or opinions to be given are still in the realm of scientific investigation, they are still too little understood to be made the basis for taking money from one person and giving it to another, or for punishing a person at the instigation of the State.

What is well established medical science can be told upon cross-examination. It can be told in a way that any intelligent man who listens can form a fair opinion of the result of the evidence of the testifying witness, and, while cross-examination is not a perfect way of sifting evidence, yet it is a great preventative of reckless testimony.

There are many witnesses, both expert and ordinary, who feel the necessity of keeping within the mark because of cross-examination. And many counsel prominent at the bar are daily convinced that there is still a "kind" that "cometh not out, except by much prayer and fasting."

SQUINT.*

By E. Pardee Bucke, M.D., London, Ont.

Mr. President and Gentlemen: I have been asked to prepare a short paper discussing the subject of "Squint." While this is not a subject perhaps directly affecting the general practitioner, for he will not be called upon and would probably not care to undertake the treatment of this condition, it is a subject of which he should possess an intelligent conception in the interests of his clientele, as it is through the early treatment of the case that one expects the ideal result. Too often, perhaps, because of the failure of the family physician to advise wisely, the little victim of a strabismus is, through delayed treatment, doomed to years of ugly deformity, and, what is worse, to the deterioration and practical loss of a formerly good eye. I shall hope, therefore, through the consideration of the subject as it is at present understood to interest you for a few minutes, and perhaps the time required will not be altogether unprofitably spent.

A few words first, by way of introduction, regarding the attitude of the profession on the subject from the earliest times of which we possess a record: Hippocrates makes mention of deviation of the eyes, and considered it a result of epilepsy in childhood. He recognized it as an hereditary condition, but with Celsus, who makes mention of the subject, doesn't offer any suggestion as to treatment. Both evidently considered the deformity as irremediable. It is not until the seventh century that we find a celebrated Greek physician, Paulus Ægineta, suggesting a method for its treatment. He recommended that a mask be applied over the eyes of those afflicted, with two little openings therein, one for each eye to look through. He hoped thus to induce the crooked eyes to become straight.

Ambroise Paré, the pioneer scientific surgeon of France, who lived in the latter half of the sixteenth century, describes the condition and attributes it to the child's turning its eyes toward the light, while lying in its cradle, or to its imitating its nurse, who, perhaps, looked "cross-eyed" to tease or amuse it.

Other theories advanced from this period on included disease or malposition of the lens, influence of visual spirits over the position of the eyes, and defective cornea as being at the basis of the condition.

---

* Read before the London, Ont., Medical Association.

Erasmus Darwin, in a treatise published in 1801, asserts that squinting is caused by one eye being less perfect than the other, and he recommends that a piece of gauze stretched on a ring of whalebone be placed over the better eye for several hours every day, so as to reduce its vision to an equality with that of the poorer. We have in this suggestion a foreshadowing of the modern method of treatment.

Although as early as 1806 Tenon had published a description of the parts within the orbit, a description which is still classic, and though Sir Charles Bell had published the result of his investigations on the actions of the external ocular muscles in 1823, in which, though he failed in his deductions, the observations were distinctly original and epoch-making, it was not for some years that any operative procedure was undertaken for the correction of deviating eyes. During the first half of the nineteenth century the theory gained ground that squint was due to a contraction of an ocular muscle, and there was instituted then the procedure known as tenotomy. To the Germans we must give the credit of introducing this operation.

It was first described by Stromeyer, of the University of Erlanger, in 1838, and the first operation was performed by Dieffenbach in Berlin the following year. One of the earliest English surgeons to perform Dieffenbach's operation was P. Bennett Lucas, and he describes the procedure (which is a simple tenotomy of the internal rectus, done as close to the scleral attachment as possible), in the *Provincial Medical and Surgical Journal* of October, 1840. Like many other surgical operations, tenotomy for a few years was much overdone. It came to be a great show operation, the newspapers teemed with descriptions thereof, and surgeons surrounded themselves with admiring crowds to witness the performance of their marvellous "cures." In their enthusiastic desire to obtain astonishing results, the tendon was severed farther and farther back from its anterior attachment, and the muscle itself was very frequently cut through, needless to say, often with very dire results. In many cases the whole four recti were myotomized, and their connective tissue surroundings cut into freely, with an ultimate result such as you can readily appreciate.

From this system of charlatanism the profession was rescued by Von Graefe, who, when the operation was being decried and repudiated by conservative surgeons, restored confidence in it by insisting on a return to the original policy, that of performing the tenotomy as close as possible to the globe.

With the return to more moderate surgical treatment the prevention and cure of these cases without operation came to be considered, and it became recognized that the accommodation and refraction of the eyes had some bearing on the etiology of the condition, a theory which was formulated in the dictum of Donders that:

1. Strabismus convergens almost always depends on hypermetropia.

2. Strabismus divergens is usually dependent on myopia;

a dictum, which, if it does not embody the whole truth, was a great advance in our conception of the subject, and has paved the way for more recent investigation, and the development of the modern method of treatment, which is sane in its conception and brilliant in its results.

In order to understand the cause and treatment of squint it will first be necessary to consider binocular vision—what it is and how it is accomplished. When the normal eyes are looking at a distant object the rays entering them are practically parallel, and the image of the object is impressed on each retina simultaneously. These images overlap (with the exception of a sector of about 35 per cent. on each temporal side) and are blended in the brain and perceived as *one* image. This *blending* of the two separate images constitutes binocular vision, and you will notice that it is purely a psychical act and has nothing whatever to do with refraction. In those cases which do not possess this faculty of binocular vision or who, in other words, do not possess the *fusion faculty*, either of two conditions must be present: Either the images from both eyes will be perceived separately, that is, diplopia will exist, or else the image of one eye will be suppressed and that of the other only be perceived.

The fusion faculty varies in its intensity in different persons. In the highest expression of it we have the sense of perspective, which is, happily, the prevalent condition, but there *are* cases in which it is very feeble, and, indeed, occasionally, entirely wanting.

It is normally a development of the first few years of life. Within two or three weeks after birth one notices that the infant has some feeble power of fixation. He is able to "fix" for a few moments only with one or other eye, but does not employ both in unison until he is about six weeks of age. These facts are simply demonstrated by reflecting a candle light into the child's eyes by means of an ophthalmoscopic mirror. The baby is readily attracted by this light, and as he looks at it you will notice a bright spot on the cornea, a reflection from the mirror. If the eye is "fixing" or engaging the light this "reflex" is seen practically in the centre of the pupil—as a matter of fact, it is slightly to the nasal side of the centre, due, of course, to the fact that the true axis and the visual axis of an eye are not identical.

As I have just said, it can be readily demonstrated that in a normal case there is some power of binocular vision as early as the sixth week. It is necessarily very feeble, and the faculty is indeed quite unstable during the first few months of life. No doubt we have all noticed a young child squint on occasions, often due to a trifling disorder of the stomach and bowels.

However, while this faculty of fusion is absent at birth, it comes into evidence, as I have said, quite early in life, and gradually increases in intensity for months; indeed, it does not come to its highest development, and, therefore, its most stable condition, until about the sixth year.

Now this faculty, while it is a normal possession of the race, is wanting or deficient in a certain small minority of persons. It is this *lack of the fusion sense* that is the basic cause of squint. In those cases of alternating refractive errors, especially hypermetropia, may contribute to produce squint, but they are never essential to its appearance. In those cases of alternating strabismus in which we find sometimes one eye turning in and sometimes the other, it is quite usual to find the refraction of the eyes normal, and each eye being used in turn, the vision of each is preserved and is usually normal also. These cases are, however, much the worst from the standpoint of treatment, as it is in them that the fusion sense is quite wanting and incapable of development.

Because constant convergent squint greatly preponderates over the other varieties, I think it will be well to devote the most of our time to a consideration of its phenomena, causes and treatment. We will thereby avoid confusion, and the main purpose of our paper will be served if we succeed in obtaining a clear conception of this condition.

The term squint implies, besides the deviation of the eye (which is only the outward and visible sign of the anomaly), four other factors as being present, namely:

2. Deficiency of the fusion sense, as already mentioned.
3. Suppression of vision of the squinting eye.
4. Greatly diminished vision of this squinting eye; and
5. There is usually present a refractive error, hypermetropia most often, which is present in both eyes.

Let us first consider the deficiency of the fusion faculty. The instrument employed for the investigation and treatment of this anomaly is known as the amblyoscope, and was devised by Claud Worth, of Moorfields Eye Hospital, London.

It is essentially a stereoscope made in the form of two tubes of about an inch and a half diameter, which are hinged at the proximal end and supplied with convex lenses, to render unnecessary any effort of accommodation in order to focus the image in the object-slides, which are at the distal end of the tubes. These tubes, instead of being straight, are in reality composed of a very short tube at the proximal end joined at an angle of 120 degrees with a longer tube, and at the junction of the two is situated a mirror.

Now, if a person with normal fusion faculty looks into this instrument and suitable object-slides be placed in position, it will be found by adjusting the direction of the tubes that a position will readily be found in which he can fuse the two images, seen separately with either eye. Moreover, it will be found that the tubes can be approximated and separated to the extent of several degrees, while fusion is still maintained. In a case of developing squint, however, it will be found that the degree to which the direction of the tubes can be changed is extremely limited. This is a very short sketch of the method employed, but will probably be sufficient to give you an idea of it. Worth has found by this means that in all his cases of squint the faculty of fusion is limited. Moreover, another point which is very convincing as to the causal retention of this defect. He was enabled to examine a considerable number of younger brothers and sisters of his squinting patients, and in some of these was able to observe their cases at later periods. Of 157 children he found the fusion faculty well developed in 106. None of these have subsequently squinted. Of 37 cases which he considered doubtful, 6 have since squinted, and of 41 whom he considered very deficient 9 afterwards developed squint. Which data goes strongly to show the importance of the relation of deficiency of fusion sense to squint.

Now as to the rationale of the development of the inward deviation:

If we look at a distant object, the rays entering are parallel and the axes of our eyes are straight ahead, our accommodation being at rest. If, however, we now fix our gaze on a near object, say a book at reading distance, we have to make use of our accommodation, and at the same time we have to converge our visual axes. These two functions of accommodation and convergence have been always so closely associated that they are practically indissoluble, and it is next to impossible to perform either act without the other.

This effort of accommodation, which is equal to 3 dioptres in a case with natural refraction, means, of course, a stronger effort in hypermetropes.

In a case in which the fusion faculty is normally developed, this tendency to undue convergence induced by abnormal accommodation is kept in check, but if the fusion faculty be deficient or, as in some cases, absent, the relative directions of the eyes are to a lesser or greater extent dependent merely on their motor co-ordinating. The result is that we find in these cases, first of all, a squint manifesting itself when the child accommodates. In many of these cases, provided there is some fusion faculty present, it is found that correction of their refractive error will, by ridding the patient of the associated tendency to over-convergence, entirely correct the deviation.

The deformity, which is at first present only when the child is looking at near objects, gradually is more often seen—(a child, as a matter of fact, spends most of his waking hours playing with objects at near range)—and if the case remains untreated it will be found that after a time it persists even in distant vision.

Now, this abnormal condition existing, the two eyes looking in different directions, it naturally occurs to one that the child must be seeing double, and if we could obtain an intelligent report from him we would probably discover that such was the case, but he will not long accept the discomfort and annoyance of this state of things, and what occurs is that he in time unconsciously refuses to perceive the image of the deviating eye—what is technically known as "suppression of the vision" of this eye occurs.

It is easy to appreciate what will now happen. If the arm of a child during this early period of development were to be strapped to his side it would not be many months before wasting of the member would be very apparent. So in the case in question, the deviating eye can do only one thing—gradually lose its power of vision. And this is what occurs. We find in all cases a greatly diminished acuity in these cases.

These more or less blind eyes are, however, if their training is taken in hand sufficiently early, capable of restoration, and this brings us to a consideration of the method of treatment.

In all cases the first thing to do is to thoroughly atropinize both eyes and measure their refraction. It will usually be found that hypermetropia, with or without astigmatism, is present, and this refractive error should be fully corrected with glasses. No child is too young to wear glasses, and, contrary to popular belief, injuries to the eyes from their breaking are extremely rare. In a certain proportion of cases, as already stated (about 30 per cent.) the deviation is corrected thereby; in any case the fusion sense is probably defective and the child will be benefitted by fusion training by means of the amblyoscope. In the majority of the cases, however, it will be found that even with these refractive errors corrected the child still squints. It will also be found that the squinting eye possesses very defective vision. Now, before anything can be done directly to correct the deviation, we must first restore the squinting eye to an equality of vision with the fixing one. There are a couple of methods commonly employed to accomplish this. One of these consists in daily bandaging the good eye for several hours, thus forcing the poorer one to exercise what function it possesses. With continued treatment over a period of several weeks or months, depending on the degree of blindness present, we will find that normal vision in this eye is regained. A child does not like a bandage, however, and most mothers do not like the responsibility of seeing that it is kept on, so that a better method to employ is the daily instillation of a drop of atropine solution into the good eye only. The child is now unable to see near objects with this eye, and the deviating eye, therefore, takes on the work of near vision, and by reason of the enforced exercise of its functions gradually returns to a normal degree of acuity. The atropinized eye is, moreover, not so subject to loss of function as though it were entirely occluded by a bandage.

We now reach a point where we have normal vision in each eye, but the deviation still exists. It is now time to undertake fusion training. Although the vision in the deviating eye may be perfect, there is usually "suppression" by it. It is, therefore, necessary in using the amblyoscope to have a separate lighting arrangement for each half of the instrument. By increasing the illumination behind the unperceived image, therefore, the squinting eye can be forced to see it.

The images used are pictures drawn on thin paper and pasted on a piece of glass which slips into the object-slides. The images used on each side are different; they are commonly two different portions of a complete picture, such as a man with a hat on his head and a stick in his hand. One slide will contain the man minus perhaps one arm, one leg and the hat and stick. The other slide will have the complementary portions. Another favorite device used is a bird on one slide and a cage on the other. Suppose the bird and the cage be put in position, the child is seated on the surgeon's knee and the instrument placed before the child's eyes. He will probably say that he sees either the bird or cage, depending on which is in front of his fixing eye. The illumination is, therefore, suppressed behind this image and increased behind the other, until he sees both the bird and the cage. The two halves of the instrument are now approximated until the child sees the bird *in* the cage. By alternately separating and approximating the tubes it will be found that the bird is now in, now out of the cage. The child is striving to keep the bird in, and after a time one finds that the two halves can be moved out and in several degrees and the bird still remain in. These treatments are given at intervals of several days for several weeks, and each time it is found that one can commence with the two halves of the instrument further apart, until finally the eyes assume their normal axes.

Sometimes, probably because the treatment has been undertaken too late, we find after improving the deformity considerably it remains stationary. In these cases a shortening of the external rectus of this eye, with or without a tenotomy of the internal rectus, will overcome the still existing deviation, and the patient will then take on binocular visions.

Of course, we see cases every day, in older children and in adults, for which nothing remains but operation, and the operation suitable will depend on the judgment of the surgeon. Either tenotomy or advancement of the muscles of the deviating eye or of both eyes are indicated, according to the degree of deformity. Advancement of the external rectus is undoubtedly preferable to tenotomy of the internal, and is suitable in cases of as high as 25 degrees. In cases of greater deviation than this, a tenotomy will be required in order to obviate retraction of the globe. In any case one expects nothing but a cosmetic effect from either procedure.

But what I want to suggest to you particularly this evening is the comparative innecessity of these operative measures if the case is appreciated early. Children from three to five years of age are the best subjects for fusion training; in the sixth year they are amenable to it, but with more difficulty, and after that it is very difficult often to accomplish much.

It may, perhaps, as I have described it, appear a long and tedious method of treatment, but surely the saving of an eye and the avoidance of such an ugly deformity is worth a much more difficult regime.

But remember, to get ideal results, one must have these cases young in life. The laity have no conception of the meaning of squint, therefore let every physician be a preacher when the occasion arises, and let him preach

1st. That squint is curable, if treatment be undertaken young.

2nd. That it is the exception for children to "grow out of" squints, and

3rd. Whether they "grow out of" it or not, there will always remain to the patient the heritage of a blind eye.

INCOMPLETE MYXEDEMA-HYPOTHYROIDEA.*

By J. McWilliams, M.D., London, Ont.

The object of this short paper is to bring before this Society what I think may fairly be termed one of the more recent steps in the differentiation of disease.

Fully-developed cases of myxedema are now fairly well understood and would be recognized by most of us, though many men will have had a large experience and not meet with a case, or fail to recognize it if they should see it.

Myxedema is admitted to be due to a lack of proper secretion of the thyroid gland, and this lack of secretion may be complete or partial. If complete, we have a completely-developed case of myxedema, with all its subjective and objective signs and symptoms. If, on the other hand, the failure in secretion is only partial, we have an incomplete set of symptoms and signs, and I believe we have many cases of this kind which have been variously diagnosed in the past, most of the cases having been relegated to that haven of rest so often taken advantage of by all of us when we do not know, viz., hysteria—and the unfortunate patient lived a miserable life, accused of having an affection which they could avoid by the exercise of will power, and in other cases the long-continued existence of the peculiar symptoms have produced a state of mind diagnosed as insanity, and I believe that many cases now confined in our asylums are cases of incomplete myxedema.

Signs and Symptoms.—As in the complete form, the skin and mucus membranes, and their appendages, the hair and the teeth, are the organs that show the ill-effects of the disease first, or at least most prominently.

Premature old age is the first thing that ought to lead one in the right direction in examining a case. The hair is thin on the temples, and on the occiput, and baldness may exist in patches. This thinning of the hair on the temples, in women especially, has been the beacon light that led me in the right way on several occasions recently. The hair is dry and fluffy and untidy. Dandruff is always present. The eyebrows and eyelashes are thin, and a scruffy condition exists at the external angle of the eyebrows. The teeth are decayed, especially the molars. Tartar of a green or black color is always present; a general condition of nasal and pharangyeal catarrh is always present; the tongue is swollen and has the marks of the teeth on its edges, and this marking of the tongue ought to lead the physician to consider the possibility of hypothyroidea. How often we have been consulted about a case of catarrh and the expression added that the patient had a poor memory and was unable to think. Such complaint on the part of a patient or his friends ought to lead us to look for this disease. Morning headache is a prominent symptom. I believe it has its origin in disease changes in the mucus membrane of the sinusus. The skin is not thickened, but there is puffing under the eyes. The expression of the face is one of sorrowful fatigue, and the whole complaint is that, "though I eat plenty I am so tired and weak." Morning pain between the shoulders is also a common symptom and comes on in the night and prevents sleep. Constipation is a predominating symptom, with all the evils that it brings. The skin has a lemon tint or dirty copper color.

---

* Read before the London, Ont., Medical Association.

There are many other signs and symptoms not so constant, such as buzzing in the ears and sound of bells, hallucinations of sight, seeing rats and mice running through the room; in females, dysmenorrhea or amenorrhea, displacement of uterus; loss of sexual appetite in both sexes; improvement in the health of the female during gestation, owing to increased activity of the thyroid gland during that period; feebleness of the heart's action, a tendency to bleed easily owing to increased tension of the arteries and reduced coagulability of the blood, and many other symptoms. But the object of this paper is not so much a full and minute description of every detail of the symptoms and signs, but rather to bring before you some of the more prominent and constant signs, so that with these in our minds we may be able to recognize the disease.

When a patient complains of constant constipation, continuous nasal and pharyngeal catarrh, constant desire to rest, loss of interest in life, being often accused of laziness by the friends, has a muddy complexion, morning headache, morning and night pain in the back between the shoulders, marks of the teeth on the sides of the tongue, lost or much-diminished sexual power, the hair on the head being very thin and unhealthy, then treatment for hypothyroidea will help to cure, no difference what else may be necessary.

A word as to treatment. Thyroid extract is, of course, the main medicament, and if dementia has not arrived it will do much for the patient, but it often fails because it is not absorbed, and it is not absorbed because the stomach and intestines are too acid, as the result of putrefactive changes, the result of the long-continued constipation. Soda bicarbonate and soda sulphate, in small doses before meals, corrects this. and the thyroid extract will then have a chance to act beneficially. The dose of the extract recommended by the men of most experience is small, beginning in the case of an adult with one grain three times daily, and gradually increasing to three grains. I think this is important. as an overdose brings on a mild form of Graves' disease, and the drug is said not to agree with the patient, and useful treatment may be abandoned when, to succeed, it only required to be modified, and there is no other treatment of any value as against the lack of gland secretion. Arsenic, strychnia and other tonics and alteratives have a good effect, but the principles which guide us in their administration are the same as in other asthmic conditions.

Clinical Department.

A Case of Gastric-Enterostomy with Complications. T. J. Carey Evans, M.D., (Brux.), M.R.C.S. (Eng.), L.R.C.P. (Lon.), in *The Lancet.*

The patient, a man aged 44 years, was admitted to the Royal Southern Hospital under the care of Mr. Newbolt on July 14th, 1907. The history he gave was as follows. For 18 months he had been suffering from indigestion. Pain of a very severe nature would come on two or three hours after meals and sometimes was so severe that he was actually doubled up with it. The pain started in the epigastrium, extended round the right side, and ended at a corresponding point behind. The patient had never vomited any blood nor had he noticed any in his stools. He had been during this time much troubled with hyperacidity and flatulence. All solid food brought on the pain, pastry in particular. A little hot milk or hot water eased the pain for the time being, but it would soon return. He had had some very severe attacks; on several occasions he had had to remain in bed, once for a week and another time for six weeks. He had been carefully dieted, but the pain still persisted and kept him from his work. A day's history is as follows: Supper would be partaken of at 8 p.m., and at 10 p.m. the patient would retire to bed. The pain would come on at about 11.30 p.m. and would awaken him. He would be forced to get up and to take some hot milk or hot water. He would fall asleep again until awakened once more by the pain in three of four hours' time, when he would have again to take some hot milk. This went on every night with painful regularity. He was in the medical wards of this hospital for six weeks and was much better when he left. It is only six weeks since he was discharged.

On examination the patient appeared to be in a fairly good condition and by no means thin and wasted. The heart, the lungs, and the nervous system were normal. There was slight tenderness over the epigastrium, otherwise nothing abnormal was to be detected. He weighed 10 stones. The specific gravity of the urine varied from 1015 to 1030 and albumin was absent. The quantity of urine voided in 24 hours varied from 40 to 55 ounces. Sugar was present, usually five grains to the ounce.

At 2.30 p.m. on July 16th operation was proceeded with. The patient having been prepared as usual was anæsthetised with ether first, but as he took it badly chloroform was substituted later with little better result. His abdominal muscles were never completely relaxed during the operation. The usual incision was made in the middle line above the umbilicus. The tissues were infiltrated with fat and were very friable. The perigastric adhesions were very troublesome and the stomach could not be drawn up at all well into the wound. The transverse mesocolon was torn through and the posterior surface of the stomach was pulled through this opening with some difficulty. The upper part of the jejunum was easily found and was clamped. An incision one and a half inches long was made in the bowel (the antimesenteric border) and continuous silk sutures were used in the usual way. The abdominal wound was stitched up in layers with catgut and silkworm gut. This was the most difficult part of the operation on account of the rigidity of the abdominal muscles. The operation took one hour and the pulse at the end of the operation was 112. On the 17th the patient was troubled with acid eructations and he vomited very acid fluid, dark in color. The pulse was 130. The stomach was washed out on the same evening with a solution of bicarbonate of sodium. This gave relief. On the 18th the pulse was still very rapid, ranging from 130 to 140. The patient felt quite comfortable but was vomiting. At 5.30 p.m. the stomach was again washed out when the bile returned. The patient looked very blanched; his pulse was regular but rapid, counting 130. It was decided to open the wound, a vicious circle or obstruction from some cause or other being suspected. At 6.30 p.m. the wound was opened under chloroform and a coil of small intestine was found gripped by the muscles in the lower part of the wound. Below this point the intestine was empty; above it it was very distended. The coil was returned and the gastro-enterostomy was examined and was found to be perfect. The abdominal wall was stitched with through and through silk sutures and with a continuous skin suture. The operation lasted for 20 minutes. On the same evening the patient felt much relieved and the vomiting ceased. The pulse was 140 and the temperature was 99·5°F. On the 20th the pulse was 110 and the temperature was 99°. On the 21st the patient was seized with pain in his right chest. The respirations went up to 48 and the temperature to 101·5°. There was slight dullness over the right base and very fine crepitus or friction could be heard. During the next few days the temperature remained at about 101° and the pulse at 110. On August 4th, the dullness being now more marked and the other clinical signs of fluid being present, an exploring needle was introduced but no fluid was obtained. No improvement having taken place in the lung condition, although there was no abdominal discomfort at all and the wound had healed perfectly, an exploratory puncture was made on the 9th and pus was obtained. The skin was rendered anæsthetic with eucaine and adrenalin and a large trocar and cannula were introduced into the eighth interspace a little in front of the scapular line. A pint of pus was obtained. The cavity was drained with a rubber tube passed through the cannula, the patient being too ill to stand further operative treatment at this stage. On the 13th under chloroform an incision was made over the old puncture and a big rubber tube was put in. The patient was very feeble and was much exhausted. After this improvement was very rapid. The temperature, pulse, and respirations all improved. The patient began to take feedings well and had no abdominal discomfort at all. He was discharged on Sept. 11th feeling very well. The gastro-enterostomy has been perfectly successful and the empyema has closed up. The sugar has also disappeared from the urine.

I am indebted to Mr. Newbolt for permission to publish the case and for the following remarks by him.

Remarks by Mr. Newbolt.—The interest of this case lies in the fact that the patient had glycosuria to begin with. This was probably of a temporary nature and due to his digestive disorders. The operation was difficult on account of the perigastric adhesions and the rigidity of the abdominal muscles. The pylorus was found to be thickened and constricted. It was evident on the morning after the operation that something was wrong but the wound looked perfect. The symptoms were not definitely those of a vicious circle. As, however, there was no improvement the wound was opened and hernia of the small intestine was discovered and replaced. The empyema which followed was doubtless due to an infection of bacillus coli and the pus had a foul smell. The operation quite relieved the symptoms and all the sugar disappeared from the urine some days after the operation. The latest reports are quite satisfactory.

Proceedings of Societies.

BRITISH COLUMBIA MEDICAL ASSOCIATION.

The Ninth Annual Meeting of the British Columbia Medical Association was held in Vancouver on August 20th and 21st. The President, Dr. J. M. Pearson, of Vancouver, presided.

The meeting was very well attended, some seventy-five in all signing the register. A large number of visitors were also present, including Dr. Joseph Price, of Philadelphia; Dr. G. S. Ryerson, of Toronto, and Drs. J. B. Eagleson, A. E. Burns, Canfield, Peterkin, of Seattle, and Dr. A. H. Coleman, of Tacoma.

A very interesting programme was presented and fully discussed. Dr. Joseph Price read an interesting paper on the advancement in abdominal and pelvic surgery, which was much appreciated by all present. The Special Committee appointed at the last meeting to report on school inspection and hygiene, particularly with regard to the manner in which it is taught in our public schools, presented an exhaustive and valuable report. Much credit is due to Dr. W. D. Brydone-Jack and the other members of the committee for their valuable contributions to this subject.

The question of the formation of a Western Canada Medical Association was fully discussed, and the following resolution was passed: "Resolved, That, in the opinion of this Association, the formation of a Western Canada Medical Association is inadvisable, and the Secretary be instructed to notify the promoters of the scheme to this effect, the feeling of the meeting being that the affiliation of this society with the Canada Medical Association was desirable, and that the multiplicity of the inter-Provincial societies might interfere with the Dominion Association."

A letter was also read from Dr. Lafferty, of Calgary, of the College of Physicians and Surgeons of Alberta. Subject: The formation of a joint Board of Examination for the four Western Provinces of the Dominion, whereby candidates for license to practise will be able to register in the Provinces of Manitoba, Saskatchewan, Alberta and British Columbia, on passing the one examination.

The folowing resolution was adopted: "Resolved, That this Association does not approve of the scheme of reciprocity with regard to registration with the Provinces of Manitoba, Saskatchewan and Alberta."

The question of affiliation with the Canada Medical Association was also discussed, and the idea was indorsed by the Association, and the Executive Committee was given power to work out the details and to carry it into effect.

Under the head of School Hygiene, it was decided to memorialize the Government and request them to appoint a medical adviser for the Education Department, so that the question of hygiene and its teaching in our public schools might be carried out under the supervision of a person specially qualified on this subject.

A special committee which was appointed at our last meeting to revise the constitution and by-laws, presented their report. The only important change was the making of the membership fees permanent; that is, members to continue in good standing, must pay their fees annually whether in attendance at the meeting or not.

The following were elected officers of the Association: President, Dr. C. J. Fagan, Victoria; Vice-President, Dr. Glenn Campbell, Vancouver; Treasurer (re-elected), Dr. J. D. Helmcken, Victoria; Secretary (re-elected), Dr. R. Eden Walker, New Westminster.

In response to a pressing invitation to hold the next annual meeting in conjunction with the State Associations of Washington, Oregon and Idaho, the next meeting place will be Seattle, where a joint meeting of the above Associations will be held, the exact date to be fixed later, probably some time in August, 1909.

Physician's Library.

Husband's Practice of Medicine. Designed for the use of students and practitioners. Sixth edition, rewritten and enlarged. By Robert F. C. Leith, M.A., M.Sc., M.B., C.M., F.R.C.P. (Ed.), Professor of Pathology and Bacteriology, Birmingham, and Robert A. Fleming, M.A., M.D., F.R.C.P. (Ed.), Lecturer on the Principles and Practice of Medicine, School of Medicine of the Royal College of Edinburgh; Assistant Physician, Royal Infirmary, Edinburgh. Edinburgh: E. & S. Livingstone.

This book will provide medical students with a concise, reliable and modern text-book of medicine. The book is not illustrated, but it is very complete as a text-book goes.

It is provided with a very full index, which will be appreciated. Treatment and the diseases of the nerves have been written by Dr. Fleming, while Dr. Leith has written the balance.

Hygiene for Nurses. By ISABEL McISAAC, author of "Primary Nursing Technique," graduate of the Illinois Training School for Nurses; formerly Superintendent of the Illinois Training School for Nurses, etc., etc. Price, $1.25. Toronto: The MacMillan Company of Canada, Limited. .

We find in this little book a text-book on hygiene for the young nurse of a rather practical character. There is just enough knowledge herein for the young nurse to assimilate. Its text is nicely arranged and unnecessary subjects are omitted.

Pulmonary Tuberculosis and Its Complications. By SHERMAN G. BONNEY, A.M., M.D., Professor of Medicine, Denver and Gross College of Medicine, Medical Department of the University of Denver, etc. With 189 original illustrations, including 20 in colors and 60 X-ray photographs. Philadelphia and London: W. B. Saunders Company. 1908. Canadian agents: J. A. Carveth & Co., Toronto.

This is a complete treatise on the subject of pulmonary tuberculosis and the many complications and secondary involvements. The book has been designed especially for the general practitioner, and in the text Dr. Bonney gives the observations of a large practical experience.

The section on physical signs of pulmonary tuberculosis is particularly thorough, a character which is necessary in a work of this kind. Special attention is also given to treatment. There are chapters on prophylaxis, open-air treatment, diet, sanitarium and climatic treatment, drug and vaccine therapeutics.

The work is particularly well illustrated, the sections on open-air treatment and on the use of X-rays in the diagnosis of pulmonary tuberculosis being especially commendable in this regard.

The Canadian Medical Protective Association

ORGANIZED AT WINNIPEG, 1901

Under the Auspices of the Canadian Medical Association

THE objects of this Association are to unite the profession of the Dominion for mutual help and protection against unjust, improper or harassing cases of malpractice brought against a member who is not guilty of wrong-doing, and who frequently suffers owing to want of assistance at the right time; and rather than submit to exposure in the courts, and thus gain unenviable notoriety, he is forced to endure black-mailing.

The Association affords a ready channel where even those who feel that they are perfectly safe (which no one is) can for a small fee enroll themselves and so assist a professional brother in distress.

Experience has abundantly shown how useful the Association has been since its organization.

The Association has not lost a single case that it has agreed to defend.

The annual fee is only $3.00 at present, payable in January of each year.

The Association expects and hopes for the united support of the profession.

We have a bright and useful future if the profession will unite and join our ranks.

EXECUTIVE.

President—R. W. POWELL, M.D., Ottawa.
Vice-President—J. O. CAMARIND, M.D., Sherbrooke.
Secretary-Treasurer—J. F. ARGUE, M.D., Ottawa.

SOLICITOR,

F. H. CHRYSLER, K.C., Ottawa.

Send fees to the Secretary-Treasurer by Express Order, Money Order, Postal Note or Registered letter. If cheques are sent please add commission.

PROVINCIAL EXECUTIVES.

ONTARIO—E. E. King, Toronto; I. Olmsted, Hamilton; D. H. Arnott, London: J. C. Connell, Kingston; J. D. Courtenay, Ottawa.

QUEBEC—H. S. Birkett, Montreal; E. P. Lachapelle, Montreal; J. E. Dube, Montreal: H. R. Ross, Quebec; Russell Thomas, Lennoxville.

NEW BRUNSWICK—T. D. Walker, St. John; A. B. Atherton, Fredericton; Murray MacLaren, St. John.

NOVA SCOTIA—John Stewart, Halifax; J. W. T. Patton, Truro; H. Kendall, Sydney.

PRINCE EDWARD ISLAND—S. R. Jenkins, Charlottetown.

MANITOBA—Harvey Smith, Winnipeg; J. A. MacArthur, Winnipeg; J. Hardy, Morden.

NORTH-WEST TERRITORIES—J. D. Lafferty, Calgary; M. Seymour, Regina.

BRITISH COLUMBIA—S. J. Tunstall, Vancouver; O. M. Jones, Victoria; Dr. King, Cranbrooke.

Dominion Medical Monthly

And Ontario Medical Journal

EDITORS:

GRAHAM CHAMBERS, B.A., M.B. WALTER McKEOWN, B.A., M.D.

ASSOCIATE EDITOR:

T. B. RICHARDSON, M D.

MANAGING EDITOR:

GEORGE ELLIOTT, M.D.

Published on the 15th of each month. Address all Communications and make all Cheques, Post Office Orders and Postal Notes payable to the Publisher, GEORGE ELLIOTT, 203 Beverley St., Toronto, Canada

VOL. XXXI. TORONTO, OCTOBER, 1908. NO. 4.

COMMENT FROM MONTH TO MONTH.

The Outlook for the Medical Student is a grave one. Before entering upon the study of medicine, the candidate should pause and think deeply. The medical colleges are again opening in Canada, and at this moment it is impossible to say what the number in attendance will be, nor yet what the first year classes will total up to. It would be interesting to tabulate the various reasons which induce these young men, many of them fresh from the high schools of the country, with practically no training in life of any sort, to enter upon the medical career as the one most roseate which offers itself as a fitting vocation for their lifework. Have they a "call"? If they have and can combine therewith a natural aptitude for the laboriously anxious life they will hereafter lead in prosecuting their profession, then it may be all very well with them. But, on the contrary, if they are looking for an easy mode of making a living and some money, as well as becoming members of a respectable calling, then there is in store for many of them keen disappointments. Of course, it is understood by all that not all who enter upon the study of medicine ever finish. Various and sundry are the reasons which will deplete the ranks of every freshmen class as it proceeds to the final year. It is on every hand manifest to many who are already in the medical profession that particularly in this country is that profession far overcrowded. Toronto is said to be the second city in the world whose medical population is more in proportion to the civic population than any other city in the world, Madrid alone excepted. It is almost as bad in other cities of Canada, and also in the country. The last great West ever offers an alluring field; but even there, with a foreign population constantly pouring in, conditions for the medical practitioner are said to be burdensome, and that, although far-off pastures look green, only a few are actually eating the succulent morsel of success. When this is true and known to all, particularly to the professors in the different teaching faculties, why should there be any extra efforts put forth to entice young men into a profession which can gain only for its members a scant livelihood? Why should the paths of entrance be paved so smoothly? Why should entrance piecemeal be continued on the curriculum of the licensing bodies? Why should the standards not be raised? Why should the age entrance not be raised? Are the feelings and judgments of a boy of sixteen or seventeen years of age ripe for choice of a career? Is a young man of twenty-one years of age capable of employing that calm judgment and deliberation required in many emergencies with which the practice of medicine is hedged in, and in which often the life of an individual hangs in the balance? Has he at the age of twenty-one even more than acquired that good preliminary knowledge in general education which all ought to possess ere he embarks upon such a tempestuous sea as the study and the practice of medicine? As year after year goes by the medical profession takes a higher standing in the community at large; and, if this be so, does it not appeal to most men that granting licenses to practice the most noble and exacting of callings to young men who have but attained their majority is hardly apace with the advancement of the scientific and practical side of medicine? At least study up to that age of a general character should be demanded before any single student should be allowed to enter upon the study of medicine. It is "up to" the professoriate to do a little discouragement rather than encouragement to the ever-increasing tide which annually surges into the medical colleges of the land. One would think this specially incumbent upon those professors of a state-aided enterprise, as there can possibly not accrue any private gain. And it would also be but just to the poor student himself that a view of his future life-work should, as far as possible, be placed before him. Let any young man sit calmly down and think good and deep before embarking on medicine as a life career. Let him add it up in dollars and cents what it is going to cost him in board, books and fees; let him add to this the amount he has been earning per annum or could earn per annum. Let him take this sum total at the end of the five years he has devoted to the study of medicine, less his cost of living, and he will have a capital of an earning possibility far in advance of an M.D. This will apply to the average student, and possibly to more than the average student. But the difficulty will be in getting him to believe it.

The Medical Student's life has greatly changed within the last two decades. Gradually the "rush," the "haze," and "elevation" has died out as popular introductories. The annual dinners or banquets have been almost done away with, and along with them have gone the beer and the booze. It is doubtful if in many of the colleges there is ever heard, " 'Tis wine that makes you feel so fine." The Hallowe'en escapades are things of the past. There is no more pelting of professors with split peas or shelled corn. There is no hideous nightmares like the suspending of cadavers on butchers' hooks. Smoking in most of the dissecting rooms is a practice fast going into oblivion; in fact, that practice would not be tolerated in a well-conducted institution. Teas and assemblies and light amusements have superseded those thrilling episodes of vanishing days. But how the old 'un loves to tell his reminiscences and chuckle over the gapes of the present youngster. It is the day now for sober determination to work and get the best that is going in the progress of the medical course.

Statistics regarding the foreign-born insane in Ontario, as given by the Hon. Mr. Hanna at a political meeting in Nova Scotia, are somewhat alarming, and they would certainly call for more rigid inspection at the hands of the immigration authorities of the Federal Government. Mr. Hanna says that some two years ago his department began to trace the history as far as possible of those already in the various hospitals for the insane in Ontario. He is reported as having spoken as follows: The result of our investigation shows an alarming increase in the proportion of foreigners committed to these institutions since 1903. The foreign-born population in our hospitals for the insane was 90 per cent. more admitted in 1907 than in 1903, the exact figures being: in 1903, 180 foreign-born admissions; while in 1907 we had 346 foreign-born insane dumped into the institutions of our Province, at a cost of $200.00 each per year for the remainder of their days, which statistics show will average thirty years. This means an outlay of $6,000 per patient, or a total charge in future payments in respect of the admissions of 1907 alone, of upwards of $2,000,000. Reverting to the Toronto institution, he went on to say that the proportion of people born outside of Canada, according to the census returns, is 20 per cent., yet in the year 1907, out of 262 admissions to the above institution, 134 were foreign-born, that is, born outside of Canada, while but 128 were Canadians. That is, the foreign-born contributed 134 instead of 32, which would have been their proper proportion. They contributed over four times their proportion. Of this 134, 77 were very recent arrivals—some of them being admitted almost from the port of landing to the institution and made a charge upon the people of Ontario. This means that in that institution alone there has been imposed upon the people of Ontario a charge of $804,000. Two years ago the Province of Ontario began to deport, and since that time upwards of two hundred have been deported.

Criminal Abortion has been much in evidence not only in Canada, but in the United States. That it is a subject which vitally concerns the medical profession on both sides of the line has been forcibly brought home to us by a lay paper here and a professional paper there. In his address as chairman of the section on obstetrics and diseases of women of the American Medical Association, Dr. Walter B. Dorsett, St. Louis, Mo., dealt with this subject under the following title: Criminal Abortion in Its Broadest Sense. He considers it is high time that medical men should have a heart-to-heart talk on this matter; and, in view of the position of affairs in certain places in Canada, this might advantageously be done. He tersely puts these questions: Does it concern us as physicians? Does it concern us as members of the American Medical Association and of this section? Does it concern us as citizens of this, our beloved country? These can likewise apply in Canada. If the abdominal surgeon and obstetrician can see the results of interference with conception, can we afford to be blind to it? The paramount question, however, is that of the criminality of the woman herself—and he discusses it fully. All know that these unfortunate girls and women come to the doctors inciting them to crime. If the operation is undertaken by unprincipled men or women, who have their moral senses blunted, the woman herself is an active participant in the crime, although passive in the operation. Should she be punished? So far as our knowledge of the Criminal Code of Canada goes—and we are informed that it is so—there is no punishment for the one who first incites to this crime and who subsequently participates in it. The doctors do not go chasing after this, as they certainly do not after other medical or surgical work. It comes to them. If they or any other man or woman undertakes it they are the only ones punishable. The woman goes scot free in the eyes of the law and only bears the odium of her immorality, which is a good lot,—but is it enough? In nine States of the American Union a woman who solicits, submits to, or performs an abortion on herself is guilty of a felony. In seven States the above offence is a misdemeanor, and in the remaining States and Territories, namely, thirty-five, the woman is guilty of no crime. Does this show that in Canada our Criminal Code is inefficient and inadequate in connection with the crime of criminal abortion, as well as in the thirty-five States of the United States referred to? The answer that the victim has already suffered enough and run enough danger cannot be considered a sufficient one; and it appears to us that our laws are not good enough nor sufficient enough against the crime of criminal abortion. In three ways can good work be performed: Education of mothers to the fact that they should educate their daughters that conception means life and not quickening; that medical faculties do their duty in the matter of teaching medical ethics; that the provincial and national medical bodies work towards securing the enactment of laws applicable to the inciters of these crimes.

News Items

Lt.-Col. Wm. Nattress, M.D., died recently in Toronto, in his 59th year.

Dr. G. W. Racey has purchased the medical practice of Dr. Cawthrope, Parkhill.

Dr. Callaghan, who comes from Port Arthur, has started a practice at Chepstow.

Dr. Tom McCrae, Baltimore, Md., was married recently to Miss Gwynne, of Dundas, Ont.

Dr. Charles R. Dickson has returned to Toronto from the meeting of the electropeutists.

Dr. John Clark, Smithport, Pa., was recently visiting in Hamilton and vicinity, his old home.

The Montreal General Hospital will receive $5,000 under the will of the late Alderman Carter of that city.

Dr. Chas. E. Hickey, Medical Superintendent of the Hospital for the Insane, Cobourg, died September 19th, aged 68 years.

Dr. J. McCullough, late of Blackstock, leaves shortly for Edinburgh to spend some time in the principal hospitals there.

Dr. Wade, of Cobourg, has been appointed surgeon of the 40th Regiment. Dr. McCoun, of Campbellford, is the senior surgeon.

Dr. C. H. Brereton, of Bethany, a well-known physician, died at the residence of his son, Dr. T. C. Brereton, at Carnduff, Sask.

Dr. Victor Ross, of Barrie, has returned from Edinburgh and London, where he spent the past several months walking the hospitals.

Dr. W. Broddy, Uxbridge, leaves shortly for England to take a position as surgeon on a vessel plying between England and South Africa.

Dr. E. A. E. Howard, who has severed his connection with St. Michael's Hospital, has been appointed ship's surgeon on the Empress of India.

Dr. Davidson has taken the place of Dr. Racey as assistant to Dr. C. W. Holmes, of Oshweken, Ont. Dr. Racey has gone to Parkhill to practice.

Typhoid fever cases in the Montreal hospitals during the last week in September were as follows: Hotel Dieu, 30; Royal Victoria, 50; General, 41; Notre Dame, 20.

Dr. T. Alexander Davies, Toronto, desires to announce to the members of the profession that he is confining his practice exclusively to the eye, ear, nose and throat.

To the endowment fund of the Montreal General Hospital $40,000 has recently been donated under the will of the late Mrs. Hope and by Mrs. George R. Hooper.

Drs. Graham Chambers and Walter McKeown, editors of this journal, have been made Associate Professors in Medicine and Surgery respectively in the University of Toronto.

Dr. Adam H. Miller, who spent the holiday season at the home of his father, ex-Warden John Miller, J.P., of Haldimand Township, has returned to Toronto, where he will spend a year as assistant to Dr. Caven.

Dr. Henry, son of the late Andrew Henry, formerly Clerk of Mono Township, is now practising his profession at Estevan, Sask. Dr. Henry purchased a new residence in that town recently and intends remaining there.

Dr. Charles M. Stewart, who has been doing post-graduate work in London this last six years, has returned to Toronto and opened an office at 142 Carlton Street. He will confine his practice to diseases of the ear, nose and throat.

Dr. Hamill, medical broker, Janes Building, Toronto, who conducts the Canadian Medical Exchange, for the purchase and sale of medical practices and properties, desires us to say to physicians thinking of disposing of their practices or properties that this is an unusually desirable time for them to list their offers with him, as he has the best list of buyers registered with him that he has had for many months, and is in a position to quickly and quietly sell any inviting medical practice anywhere in Canada.

Dr. O. A. Cannon, honor graduate and medalist of Toronto University, and house surgeon for a year at Grace Hospital, Toronto, has gone to Stratford to enter partnership with Dr. J. P. Rankin, who, it is well known, is one of Stratford's most experienced and successful practitioners. The medical firm will be known as Rankin & Cannon. Dr. Cannon's brilliant success in his course and in his hospital work augurs well for his career in Stratford, and Dr. Rankin is to be congratulated upon having secured so able an associate.

The American Hospital Association met in Toronto in tenth annual session during the week ending the 3rd of October. Its membership now reaches 500. The treasurer's statement shows a balance of $1,268.64. Canada made 25 applications for membership during the past year. Canadian young women are appreciated as nurses in the United States. Mr. John Ross Robertson was offered the presidency, but declined. The next annual meeting will be held in Washington, D.C., from the 22nd to the 29th September, 1909. Dr. John M. Peters, of the Rhode Island Hospital, Providence, R.I., was elected President; Dr. J. N. E. Brown, Toronto General Hospital, one of the Vice-Presidents, and Dr. W. L. Babcock, Detroit, Secretary. Dr. Donald McIntosh, of the Western Infirmary, Glasgow, Scotland, was elected an honorary member.

The International Medical Congress at Budapest.—The Sixteenth International Medical Congress will be held at Budapest, Hungary, under the distinguished patronage of the aged Emperor of Austria, from the 29th of August to the 4th of September, inclusive, 1909. A strong Canadian committee has been formed to represent the medical profession of Canada at this conference. The following is the committee: Drs. W. H. B. Aikins, A. H. Garratt, E. E. King, J. S. MacCallum, G. R. McDonagh, A. McPhedran, G. S. Ryerson and A. H. Wright, of Toronto; Drs. H. S. Birkett and F. Shepherd, of Montreal; Dr. Courtenay, of Ottawa; Dr. J. D.

Third, of Kingston; Dr. Ingersoll Olmsted, of Hamilton; Dr. J. D. Wilson, of London; Dr. Halpenny, of Winnipeg; Dr. S. J. Tunstall, of Vancouver, and Dr. O. M. Jones, of Victoria. The secretary of the committee is Dr. W. H. B. Aikins, 50 College Street, Toronto.

A COMPLETE reorganization of the medical staff of St. Michael's Hospital has been announced. There are a number of reasons for the changes, chief among which may be mentioned the fact that when the General Hospital was reorganized a rule was passed allowing no medical man on the special or department staffs of that institution who was connected with those of another hospital. This rule, however, does not apply to consulting staffs. Another reason is that St. Michael's has a great amount of clinical work, of which Toronto University wished to have the benefit. A system which will work in with these conditions has been adopted. There will now be two services in surgery, of which the chiefs are Dr. I. H. Cameron and Dr. Walter McKeown, and two services in medicine, with Dr. R. J. Dwyer and Dr. H. B. Anderson presiding. The heads of the department of obstetrics and gynaecology are Dr. F. Fenton, Dr. A. H. Garratt and Dr. M. Crawford, while Dr. G. H. Burnham is chief of the department having to do with diseases of the eye. A list of the complete staff will shortly be announced. Doctors who are debarred, by the new rule referred to, from acting on department staffs, are still retained upon the consulting staff. Plans are partly ready for a large addition to St. Michael's Hospital, to be built on the property directly to the north of the present building.

FRENCH DOCTORS IN TORONTO.—A distinguished party of twenty-two French professors and doctors were in Toronto on the 18th of September and were entertained all day by local medical men. They arrived at 7 o'clock in the morning and left next day to attend the International Tuberculosis Congress, which met in Washington last week. The party included: Prof. Landouzy, Prof. Arloing, Dr. Pierre Teissier, Dr. Courmont, Dr. Leon Bernard, M. Piot Bey, M. Augustin Rey, M. Beaumevieille, M. Braine, Dr. Calmette, Dr. F. Cornudet, Dr. Chaboux, Dr. Paul Gallot, Dr. Guirauden, Dr. R. Hirschberg, Dr. de Kerdrel, Dr. Kaufmann, Dr. Mignon, Dr. Sargiron, Dr. Servant, M. Andre Servant, Dr. Triboulet. Prof. Landouzy is Dean of the Medical Faculty of Paris and President of the French committee in connection with the Tuberculosis Congress. Prof. Arloing belongs to the medical faculty of Lyons. Most of the visitors have made some specialty of the study of the white plague. They were given a motor drive around the city by the Academy of Medicine shortly after their arrival, Prof. Landouzy remaining with Dr. W. H. B. Aikins, at 50 College Street. At noon Dean Reeve of the Medical Faculty of the University of Toronto entertained them at luncheon in the Medical Building. There were three toasts only: "The King," "The President of France," and "The Visitors." Afterwards a reception was tendered at the Academy of Medicine at Queen's Park. Mrs. Aikins entertained the ladies of the party, Mesdames Landouzy, Eugene Lambert, Courmont and Piot. In the evening a dinner was given at the Toronto Club, presided over by Dr. J. F. W. Ross, President of the Academy of Medicine. Among those invited were: Dr. J. G. Wishart, Dr. E. E. King, Dr. A. A. Macdonald, Dr. H. J. Hamilton, Dr. A. McPhedran, Dr. R. A. Reeve, Dr. F. N. G. Starr, Dr. C. Lusk, Dr. C. J. Hastings, Dr. William Goldie, Dr. N. A. Powell, Dr. J. A. Amyot, Dr. T. McMahon, Dr. R. J. Dwyer, Prof. Ramsay Wright, Dr. A. H. Wright, Dr. G. S. Ryerson, Dr. W. P. Caven, Dr. Allan Baines, Dr. A. H. Garratt, Dr. J. Ferguson, Dr. W. A. Young, Dr. George Elliott, Mr. J. A. Macdonald, Mr. J. S. Willison, Dr. A. J. Johnson, Dr. W. Oldwright, Dr. G. A. Bingham, Dr. J. O. Orr, Sir Mortimer Clark, and Major Macdonald.

KEPHYR.—The City Dairy Co., Limited, Toronto, is placing this product before the medical profession. They have issued a booklet entitled The Therapeutic Indications of Kephyr, a Clinical Lecture from the International Clinics, 1905. By G. Hayem, M.D., Professor in the Paris Faculty of Medicine. They will gladly send this to physicians on application. Many Toronto physicians are using this preparation with pronounced success.

Publishers' Department.

Catarrhal Diseases of the Naso-Pharynx.—As the season is now fast approaching when this class of diseases takes up most of the physician's time, and is the cause of more suffering among more people than almost all other diseases combined, I wish to say something in regard to a simple and effective treatment in this class of diseases. In this climate this is the commonest of all diseases, there being very few who do not suffer from it in some of its various forms. Chronic nasal catarrh is in most cases a result of repeated attacks of acute catarrh or "common colds." In this short article it is not necessary to go into details or take up time or space with causes and symptoms; everyone is familiar with them. My object here is to simply give my plan of treatment, plain and simple, yet eminently successful. In the treatment of these cases every physician is well aware of the fact that cleanliness is in most cases all that is necessary for a cure. Every physician also knows that in order to have a perfect cleansing agent it must be both alkaline and antiseptic. My success in treating these diseases, viz., acute and chronic nasal catarrh, including ozena, acute and chronic tonsilitis, pharyngitis, catarrhal deafness, etc., has been due almost entirely to the systematic and thorough cleansing of the mucous surfaces with Glyco-Thymoline. I have been using this ideal alkaline antiseptic in my practice for years, and have never been disappointed in it. A few cases from my note-book will better explain my method of treating these cases: George C., boy, aged six. Was called early one morning to see him. Found him with a severe attack of acute tonsilitis. Temperature, 104½ three hours after a hard chill in the night, both tonsils inflamed and badly swollen, one covered with the characteristic patches. I at once ordered Glyco-Thymoline and hot water, equal parts, and instructed him how to gargle and hold his mouth and throat full by lying on his back. In this way he could retain it in contact with his throat for some time, this to be kept up *ad lib* all day. I gave 1-10 drop tr. aconite every two hours. When I visited him at night I found him much improved. I kept him on the same treatment during the night and discharged him well on the morning of the second day. This is my way of treating acute tonsilitis, and I want to affirm here that it will cure almost every case if begun early and used persistently. I always use the Glyco-Thymoline and water as hot as possible. In chronic follicular tonsilitis I use Glyco-Thymoline, frequently pure with an atomizer, spraying with force directly against the tonsil every day. In this way you can clean out the crypts thoroughly, and it has been the most successful treatment I have ever used in this *hard to cure* disease. In chronic pharyngitis, ministers' and singers' sore throat, I use alternate hot and cold sprays with success. In the ulcerated throats of scarlet fever I find nothing so soothing and effective as Glyco-Thymoline used in the same way. One other case I will report was a case of ozena of several years' standing. Young lady, aged eighteen years, was brought to me. She had been a sufferer for several years, having been treated by several physicians at home and by one specialist, who had operated upon her, removing the turbinates, and cauterized with no success. I found her in a most pitiable condition from the ulceration. Discharge profuse, greenish yellow, and of the most offensive odor. Frequent nosebleed, hearing badly impaired in the right ear, flesh very much reduced, general health bad, and with a tubercular history, making the prognosis very unfavorable. I ordered her to use locally Glyco-Thymoline, 50 per cent. solution, treating her at my office with an atomizer every other day, and having her use it at home with the K. & O. douche. I also put her on tonic treatment. While treating her at the office the third time she blew from the nostril a mass of decomposed flesh, containing pieces of dead bone, which was expelled with difficulty, followed by a severe hemorrhage. After this her improvement was rapid and continuous, resulting in her complete recovery in less than two months. I have used this treatment in numerous cases, and always with eminent success. I have no reason to change. Glyco-Thymoline is certainly the ideal alkaline antiseptic, and I am glad to recommend it to all my fellows in the treatment of all catarrhal diseases.—H. M. Marsh, M.D., Auburn, Ky.

Puberal Anemia.—Broad clinical experience certainly tends to support the opinion of many medical men that chlorosis is practically limited to the female sex, and to these during the child-bearing period. As is well known, chlorosis is hardly a true anemia, inasmuch as it consists rather of a decrease of hemoglobin than any marked on constant diminution in either the corpuscles or mass of the blood. There is a true anemia, however, which occurs at or about puberty and is common to both sexes. This may properly be spoken of as a puberal anemia, and manifests itself by both oligocythemia and oligemia. Young men as well as young women are attacked, and the cause seems to rest on actual structural deficiencies rather than on emotional influences, as is generally believed to be the case in chlorosis. It is slow and insidious in its onset and is characterized by a pallor or bloodless appearance quite different from the greenish color of chlorosis. Examination of the blood shows a greater or less decrease of hemoglobin, but, unlike chlorosis, the red cells and total quantity of the blood are lowered very markedly. Strange to say, however, the specific gravity is usually raised in puberal anemia, while in chlorosis it is generally lowered. One pronounced clinical symptom referable to the pulse, according to a prominent English authority, will moreover be found in puberal anemia which is not common in chlorosis. In anemias of failing quantity, such as puberal anemia, the pulse is almost invariably feeble and empty, while in chlorosis it is often dull and even of quite excessive pressure. The type of anemia under discussion is probably due to: (1) Excessive demands on, or actual destruction of the blood elements; (2) deficient renewal of its elements; (3) or both. The first is a sequence of some disease like fever or toxemia; the second of inanition or malnutrition; and the third of some wasting process, which not only depreciates the blood, but, by lowering functional activity, militates against any physiological tendency to restoration. In any instance the paramount need is to stimulate hematopoiesis, and for immediate and satisfactory effect in this direction Pepto-Mangan (Gude) has been found of very great value. Under its administration, the hematogenic function is actively increased and the appetite and general nutrition rapidly raised. The digestion is improved and never embarrassed—a statement that can be made of none of the inorganic preparations of iron. It goes without saying that the best of hygiene, good food and as much outdoor life as possible should also be prescribed in the treatment of puberal anemia. The condition, if allowed to continue, is always dangerous, principally because of its predisposing tendencies to graver disease; but the results of the treatment recommended are usually so prompt and decisive that there is rarely any excuse for its not being controlled. At any rate, "It is the stitch in time" that saves serious trouble, and Pepto-Mangan (Gude) in this class of cases will be found a very dependable stitch.

I AM well pleased with effects of Ecthol in severe cases of blood poisoning; as an external remedy in all painful affections, especially rheumatic, as was demonstrated in the case of my wife, who was laid up in bed with a painful rheumatic affection of one of her feet. which, after bathing and wrapping with Ecthol, to my surprise was about the house again the next day. She swears by it, and will not allow me to be without it. I have also found it excellent in pruritus ani and erysipelas. I prescribe it through a druggist in Newburg, and have bought three bottles for myself. I am now using it in a case of ulcer in an old man, on the bottom of his foot, which is healing.—G. A. Gorse, M.D., Meadowbrook, N.Y.

Laxative Properties of Phenolphthalein.—Phenolphthalein (dioxytriphenylphthalide), $C_{20}H_{14}O_4$, is obtained by causing concentrated sulphuric acid to act upon phthalic anhydride. In the pure state, it occurs as a white or faintly yellowish crystalline powder, devoid of taste, readily soluble in alcohol, but sparingly soluble in water. Up to a few years ago it was known to pharmacists only as an indicator. In 1902 the laxative properties of phenolphthalein were discovered, and accidentally at that. The substance was used as a means of distinguishing a certain wine, and it was found that this wine caused diarrhea. Phenolphthalein was then examined and found to have a laxative action when administered in small doses. Since that time it has been introduced by enterprising firms under various fanciful names . . . . As regards its fate in the system, it has been maintained that the drug remains unchanged in the acid stomach, but probably in the alkaline intestinal fluid forms a sodium compound—a very indiffusible salt of high osmotic pressure, which leads to the accumulation of much fluid in the bowels. Phenolphthalein appears to be absorbed only to a very slight degree, and to that extent to be excreted by the kidneys. According to Dr. Oscar Schwartz (*Munch. med. Wochenschr.*, 26, 1903), out of 3 grammes given to a dog, 2.55 grammes were recovered from the excreta; 10-gramme doses had no distinct effect on the elimination of sulphates in the animal, so there can be little or no decomposition with elimination of phenol in the system. When the urine is acid, as in health, the administration of phenolphthalein causes no coloration of that excretion, but when the urine is alkaline or neutral, it produces a deep crimson-red color. Tunicliffe (*Brit. Med. Journ.*, October 18, 1902), Vamossy (*Munch. med. Wochenschr.*, 26, 1903), and others laud the laxative action of phenolphthalein. They claim that it never causes any violent diarrhea or colic, that it does not irritate the kidneys, and that its depressant action on the circulation is less than that of magnesium

For COUGHS and
THROAT IRRITATION

PINOCODEINE

"FROSST"

Each fluid drachm contains:—Codeine phosphate ⅛ gr. combined with Pinus Strobus, Prunus Virginiana, Sanguinaria Canadensis, Populus Balsamifera and Chloroform.

As a routine expectorant, it is the same reliable product that has had the support of the profession for the past eight years.

STOPS COUGHING,
ALLAYS IRRITATION,
ASSISTS EXPECTORATION

Perfectly safe with patients of any age.

For GRADUAL or
SUDDEN HEART FAILURE

Elixir Digitalin Co. "Frosst"

Each fluid drachm contains:—Digitalin 1-100 gr.
Nitroglycerine 1-100 gr. Strychnine 1-50 gr.

The original product that has created the demand for this energetic stimulant.

CHARLES E. FROSST & CO.

MONTREAL, CANADA

sulphate. Vamossy endeavors to prove the harmlessness of the remedy by stating that in several cases in his knowledge children have eaten a whole boxful of the tablets without suffering any more alarming result than a brisk purgation. The only intimation of possible untoward effect we have seen is in a report by Dr. Schwarz (*Munch. med. Wochenschr.*, 1, 1903), who says that phenolphthalein being a phenol derivative, should be administered to children with caution, and that it is especially inadvisable to regard unlimited doses as harmless in the case of one-year-old children, since these have a general disposition to convulsions and diarrhea. Even in the case of an adult, two or three tablets have been seen to give rise to painful diarrhea accompanied by other unpleasant symptoms. What the latter are is not stated. The laxative virtue of phenolphthalein seems to be recognized by the American medical profession. —(Extract from *The Druggists' Circular*, July, 1907.)

In referring to phenolphthalein, *The Journal of the American Medical Association* (vol. xlix, page 954), prints as follows: Physicians should remember that the promoters of . . . . are simply introducing a chemical well known to laboratory workers for the last twenty years, which has been recognized as an aperient for at least seven years, and which can be purchased for 40 cents an ounce, whereas an ounce of phenolphthalein in the form of . . . will cost $3.20 wholesale. It is undoubtedly true, however, as we have previously stated, that phenolphthalein is worthy of a trial.

Messrs. Charles E. Frosst & Co. beg to offer to the medical profession of Canada the following ethical products containing phenolphthalein. These carefully prepared tablets present this valuable agent in accurate dosage, and, as offered under their label, the absence of any tendency to gain publicity through the laity will at once be noted by physicians.

Compressed Tablets.

Phenolphthalein, 1¼ Grs. (C. T. No. 197 Frosst.)

Dose—One to four tablets.
Per 100, 35c; per 500, $1.50; per 1,000, $2.95.

These tablets, containing 1¼ grs. phenolphthalein combined with sugar, may be readily crushed, and, therefore, easily administered

THE HOUSE OF QUALITY
(REGISTERED)

A personal visit to our showrooms will convince you better than can any advertisement.

Fairweather's

FURS

FUR AND FUR-LINED GARMENTS FOR MEN AND WOMEN

SETS AND SINGLE PIECES IN SABLE, MINK, PERSIAN LAMB, FOX, LYNX, ERMINE AND CHINCHILLA

The best way to be sure of your furs is to be sure of your furrier. Our reputation for excellence of style and quality is your guarantee. Visitors are always welcome in our Fur Showrooms, whether or not there is any intention to buy.

WRITE FOR FUR CATALOGUE, "L"

J. W. T. Fairweather & Co.

84-86 YONGE ST. TORONTO

to children and others who may find it difficult to swallow a tablet. These tablets act absolutely without pain or discomfort to the patient.

Chocolate Coated Tablets.

Pheno—Tonic Laxative. (C. C. T. No. 212 Frosst.)

R. Phenolphthalein	$\frac{1}{2}$ gr.
Ext. Nux Vomica B. P.	$\frac{1}{4}$ gr.
Ext. Cascara Sagrada	1 gr.

Dose—One to three tablets three times a day.
Per 100, 35c; per 500, $1.48; per 1,000, $2.85.

Chocolate Coated Tablets.

Pheno—Active. (C. C. T. No. 213 Frosst.)

R. Phenolphthalein	3-4 gr.
Aloin	1-5 gr.
Ext. Belladonna	1-16 gr.
Powdered Ipecac	1-16 gr.
Strychnine	1-120 gr.

Dose—One or two tablets night and morning.
Per 100, 38c; per 500, $1.55; per 1,000, $3.05.

Phenolphthalein, $\frac{1}{2}$ Gr. (C. T. No. 190 Frosst.)
Colored pink. Wintergreen. For children.
Phenolphthalein, $7\frac{1}{2}$ Grs. (C. T. No. 207 Frosst.)
Octagon shape. Vanilla. Purgative dose.

The profession will kindly note the advantages derived from specifying tablets bearing the label "Frosst." They rapidly disintegrate, producing prompt results. They do not harden nor become insoluble with age. They furnish absolute accuracy of dosage.

Samples of any formula you may especially be interested in will be gladly furnished by enclosing your card and addressing Messrs. Charles E. Frosst & Co., Pharmaceuticals for Physicians' Use, Montreal, Canada.

Dominion Medical Monthly

And Ontario Medical Journal

Vol. XXXI. TORONTO, NOVEMBER, 1908. No. 5.

Original Articles.

HYDROTHERAPY IN MENTAL AND NERVOUS DISEASES.*

By A. T. Hobbs, M.D.,

Superintendent Homewood Sanitarium, Guelph, Ont.

Winternitz, in his system of Physiologic Therapeutics, says, "Hydrotherapy is the systematic application of water at various temperatures and pressures and in varying forms to the surface of the body for dietetic, prophylactic and therapeutic purposes."

To properly carry out the principles of hydrotherapy, as laid down by Winternitz, it is necessary to have an apparatus whereby water may be applied at an exact dosage, that is, it must be capable of absolutely regulating temperature and pressure to suit the various conditions which we are called upon to treat, if we are to meet with success.

We are still in the embryonic stage, at the Homewood, as far as hydriatic treatment is concerned, having only had a year's experience with the apparatus, as designed by Simon Baruch, of New York City, but the results thus far obtained are very encouraging, and lead us to hope that much good may be done along the lines of hydrotherapy. I do not think that I can lay too much stress upon the fact that the treatment must be exact to be successful. Just as you give exact doses of drugs for certain conditions, so you give exact doses of water—you expect certain results to follow the dose of the drug—and you also expect certain results to follow your water dosage—therefore, I say, be exact.

---

* Read at Canadian Medical Association, Ottawa, June, 1908.

The good effects of this system of treatment can easily be nullified in the hands of unskilled and unintelligent operators; furthermore, each patient is a law unto himself and demands close study by the physicians and the bath attendant. Subjective symptoms cannot be entirely ignored, and sometimes too strict adherence to a definite prescription may do more harm than good, and the bath attendant must learn by experience to recognize any error in the prescription. On the other hand, however, due care must be taken that the patient does not lead physician and operator astray by misleading statements to their own detriment.

The rationale of treatment in cases ranging from the mildest form of neurasthenia to the gravest form of melancholia generally resolves itself into a question of suitable diet and its proper assimilation. I am well within the mark when I say that 80 per cent. of the mental and neurasthenic admissions to the Homewood, present, in addition to their many symptoms, an emaciated appearance, and a body weight much below par.

Any method of treatment that will improve assimilation in these neurotic and mental patients is a valuable adjunct to our armamentarium.

In hydrotherapy, scientifically applied, we have, without doubt, an aid to general treatment that will materially assist us in the recovery of our patients.

Time does not permit me to go extensively into the action of water on the various functions and organs of the body, but let me point out a few facts that can be easily demonstrated with the proper apparatus.

(A) *On the Circulation*:—Baruch says: "The circulatory system forms the great highway upon which the products for the maintenance and growth of the organism are conveyed, and by which the products of waste and repair incident to the performance of all functions are eliminated. It, therefore, follows that any agent which is capable of exercising the slightest influence upon an apparatus which is destined for these important tasks, must be capable of exercising in disease an analogous influence upon the organs and their functions, which come under the domain of its influence."

These are some of the effects of water so applied:—

Cold water applications cause rise of blood pressure.
Warm water applications cause fall of blood pressure.
Cold enhances the tone of the entire circulatory apparatus.
Warm diminishes the tone of the entire circulatory apparatus.

(B) *On the Composition of Blood.*—After cold there is an increase of red and white blood corpuscles and haemoglobin.

After hot air and steam baths a diminution followed by moderate increase in robust people.

(C) *On Respiration.*—The greatest irritation of the respiratory centre is produced by a cold application on chest and abdomen, then follow deeper respirations and an increased oxygen consumption, and a freer carbon dioxide elimination.

It must be noted, however, that after cold applications, respiration is affected by the extent to which reaction ensues; if the latter is good, then respiration becomes much deeper, and more air is inspired into the lungs.

If mechanical influences be added to thermic, as in douches, the effect upon the respiratory centre is much more enhanced.

(D) *On Muscular System.*—The fatigue curve is much increased by cold, that is, the working capacity is much improved.

Warm baths, unaccompanied by mechanical effect, lower the working capacity. Combined with mechanical effect warm baths increase working capacity, but not to the same extent as cold, or alternating hot and cold.

(E) *On Tissue Change.*—The influence of hydriatic procedures on circulation, respiration, composition of the blood, and muscular action has been stated. If these effects are far-reaching in health, how much more marked must they be in disease. The quantity and quality of the blood in various organs and parts of the body are improved and controlled, and since functional activity is the chief agency in producing tissue change, and this activity is dependent upon the blood supply in the organs, we may, by influencing the latter, readily exercise a powerful effect upon the former. That thermic and mechanical irritation applied by means of water upon the cutaneous surface arouses cell activity and effects tissue change is a fact that is based upon substantial experimental data.

Accepting these conclusions as correct, as they are attested to by practical demonstration, we are then in possession of an important agent with which to treat successfully many forms of mental and nervous diseases met with, not only by the specialist, but by the general practitioner.

Our plan of treatment, to be more specific, has been as follows:—

Neurasthenia.—In all bath treatment it is a fundamental principle that reaction must follow the application of cold water.

Equally as important is it that no procedure should be prescribed which will in any way frighten a patient, or cause that patient to lose confidence in a method which is new to the large majority of them, therefore, in the treatment of neurasthenia, I make it a practice to employ the milder measures at first, and gradually work up to the highest degree of hydrotherapeutic treatment. For example: the patient is only sent to the bath three times a week for the first week, and if their reactive capacity is fair, and they have grown accustomed to the procedures as ordered, they are sent daily.

A general prescription reads as follows:—

Hot air box to point of perspiration.

Circular douche 100°—90°—2 minutes—15 lbs.

Fan and jet douche to entire body, 90° to 80°—10 lbs—1 minute.

Lower minimum temperature 2 degrees and increase pressure 2 lbs each treatment until a temperature of 60° and a pressure of 30 lbs is reached.

The above prescription is suitable for a female; male patients can be treated more actively, beginning with lower temperatures and higher pressures.

After the patient has become accustomed to the jet douche, the Scotch douche (alternating hot and cold) may be used with good results.

Usually a walk in the open air, to the point of fatigue, is ordered to follow the bath.

Melancholia.—The same treatment as outlined above. If it is impossible to place the patient in a hot box, owing to some mental phase, I would suggest as a substitute the circular douche at 102° or 104° for two minutes before reducing to 90°, as it is important that the body be well warmed before any cold is applied.

In the melancholic, the Scotch douche, used freely all over the body, markedly stimulates the circulation and imparts a sense of well-being, substituting the depression; and also considerably lessens the lethargy, inclining the patient to greater activity. As the treatment progresses, day by day, the periods of euphorbia lengthen, and the depression decreases until finally normal mental health is restored.

Following the bath a vigorous towelling is indicated, more particularly in cases where reaction is not marked. This is usually required in the early stages of treatment in the majority of cases.

In case of any difficulty with the patient refusing the douches, the nurse steps into the bath and manipulates the patient, at the same time reassuring him.

Dementia Praecox.

(a) *Hebephrenic Type.*—Some good has been obtained in these cases by the use of stimulating baths of various kinds. The patient should go to the bath daily, and the treatment should be the same as in neurasthenia and melancholia, and gradually be increased in strength. Circular, rain, jet and Scotch douches are indicated with lowering of minimum temperature, and increase of pressure each day until the highest point of efficiency is reached.

(b) *Catatonic Type.*—As above. Results not so encouraging.

Manic Depressive Insanities.

(a) *Manic Type.*—Control excitement by continuous bath, 100°—one-half to six hours, according to condition.

Hot or cold packs (cold preferred) continued until excitement subsides. If patient falls asleep, leave him in the pack until he wakens, in the meantime keep him well covered with additional blankets. On removing patient from the pack, a half bath, 80° or 85°, should be quickly given with active friction, to restore tone of dilated blood vessels, and then return patient to bed.

Pack repeated two or three times a day if necessary.

(b) *Depressive*, the same as melancholia.

Exhaustion Psychoses, or Exhaustion Following Acute Disease.—Half bath, or drip sheet, or affusions night and morning—temperature 80° to 85°, duration 3 to 5 minutes, followed by a vigorous towelling, and patient returned to bed, and in serious cases the temperature may be reduced to 70° or even 60°.

Baruch says, "Let not the fear of cold water deter anyone from resorting to cold affusions in these desperate cases. They are the hydriatic substitute for digitalis and alcohol." I can fully endorse this statement, as I have recently treated a serious case of exhaustion and collapse in this way, and I can assure you that the result has been most gratifying.

Alcoholism—Prescription (daily):—

Hot-air box, 140°—185°—10 minutes.
Circular rain douches—100°—60°—3 minutes—25 lbs.
Scotch douche—100°—60°—5 minutes—25 lbs.
Rain douche—60°—30 seconds.
Hot-air box may be omitted after first two weeks.

Morphinism—Cocainism.—For the unpleasant symptoms of pain and restlessness during and following the reduction of the drug, I know of nothing better than full tub bath, temperature 102°, gradually increased to 110°, duration 15 minutes, at least; may use this twice daily.

In our year's experience with general hydrotherapy our most excellent results have been obtained in neurasthenics, melancholics, exhaustion psychoses, manic depressive insanity, and alcoholics. In the other psychoses only fair results have been obtained.

Incidentally it has been found that the use of the perineal douche, temperature 85°, pressure 25 lbs., 2 minutes, patient sitting or standing over it, has been useful in chronic constipation. This is only of recent date, but, so far, results are good. The jet douche—same pressure and temperature—applied to the abdomen is also useful in torpor of the bowel. Sitz bath in sexual neurasthenia—warm gradually reduced to cold—five to ten minutes.

Much of the success of hydrotherapy at the Homewood is due to my first assistant, Dr. E. C. Barnes, who has been untiring in his efforts to place the treatment on a practical basis. In this he has been materially aided by the intelligent co-operation of the nursing staff. By means of lectures and practical demonstrations the nurses have been instructed in the physiology and anatomy of the skin, and the various organs and functions of the body that are affected by hydriatic procedures, the effects of the various kinds of baths and the indications for their use, but above all, they have been taught to be exact in all procedures, and have now learned to fully appreciate the necessity of this by the gratifying results that have been obtained.

A SMALL meningocele may resemble a sebaceous cyst. The previous history is important in the diagnosis. A meningocele of this character is present "as long as the patient can remember" and remains about the same size; a cyst begins as a small nodule later on in life and increases in size.

PERSISTENT furunculosis and allied suppurating skin lesions appear to yield in a large percentage of cases to Wright's vaccine treatment. Stack vaccines are usually suitable to such cases. The internal administration of yeast, calcium sulphide, etc., affords only occasional help.—*American Journal of Surgery.*

OUR EXPERIENCE IN BRONCHO-PNEUMONIA.*

By C. S. McVicar, M.B.,
Hospital for Sick Children, Toronto.

In the past seven years 75 cases of Broncho-Pneumonia have been admitted to the medical wards of the Hospital for Sick Children.

Number of cases of Primary Broncho-Pneumonia	64
Number of cases of Secondary Broncho-Pneumonia	11
Total	75

Deaths from Primary Broncho-Pneumonia	25—39%
Deaths from Secondary Broncho-Pneumonia	8—73%
Number of cases under 2 years	32—43%
Number of cases under 2 years	20—66%
Number of males in whole series	45—60%
Number of females in whole series	30—40%
Number of deaths in males	19—44%
Number of deaths in females	14—46%
Month of greatest incidence, February	24%

Comparison of seasons as to incidence:

Winter	38%
Spring	25%
Autumn	24%
Summer	13%

Character of Temperature:
Remittent in 56 or 75%
Continued in 19 or 25%

In 42 cases with recovery:
Decline was by Lysis 29, or 69%
Decline was by Crisis 13, or 31%
Cough was present in 75 cases, or 100%
Cyanosis was noted in 61, or 80%

It is perhaps impossible from Hospital records to get a correct idea of the relative severity of cases, but if we take the averages of the maximum temperatures, pulse rates, and respiration rates, in each series, we have, at least, an approximate conception of the disturbance caused.

---

* Read at meeting of Canadian Medical Association, Ottawa, June, 1908.

The following table may be used for purposes of comparison:

	Average Max. Temp.	Average Max. Pulse.	Average Max. Respiration.
In 39 primary cases with recovery.	104^2	153	58
In 25 primary cases with death . . .	104^2	161	68
In 8 secondary cases with death . .	103^4	153	63
In 3 secondary cases with recovery	103^3	152	53

From this table it seems reasonable to infer that increased respiration rate is the most serious feature in determining the prognosis—although the pulse rate is also higher in the fatal cases—while the temperature is not significant.

In the whole series of 75, the temperature rose above 106 degrees in four cases—three with death, and one with recovery.

A few facts in connection with treatment may be of interest. Eight cases with recovery were treated without stimulation or local application of any sort. Eighteen cases with recovery were treated without stimulation. Some idea of the severity of these cases may be gained from the following table:

	Average Max. Temp.	Average Max. Pulse.	Average Max. Respiration.
Eight cases with recovery without stimulation or local application . .	103^3	142	53
Eighteen cases with recovery without stimulation	103^4	143	53

The therapeutic measures used may be conveniently classified as follows:

1. Means Used for Relief of Toxic Symptoms.

(a) Antipyretic drugs were used in five cases, of which two died and three recovered. In two cases no effect was noted. In one case the temperature fell with each dose and rose again in a few hours, indicating that while the manifestation of toxaemia was modified, the toxaemia itself persisted. In one case depression of the medullary centres as shown by increased cyanosis is noted.

(b) Hydrotherapy has proven of greatest value. The administration of as much fluid by the mouth as the child will take has always seemed valuable. The hot pack is the best external means of controlling nervous symptoms. It seldom fails to keep the temperature within bounds. Cold packs and cold sponging have proven, in so many instances, distressing to the child, that they are to be avoided as routine measures. When the hot pack fails to control either temperature or nervous symptoms, tepid sponging should be tried before resorting to cold.

2. Local Applications.

The quilted pneumonia jacket was used in six cases with recovery, and in six cases with death. No reason is recorded in any instance for its use, and no benefit is noted as a result of its use in any case. In three cases it was removed because it hampered the movements of respiration. The jacket seems to have no advantage over a light woollen shirt, which opens along the side of the chest to permit ready examination.

Poultices have been used in a few instances. In many cases they are uncomfortable, and in nearly all instances they are a mechanical hindrance to respiration, as shown by an increased rate of respiration following their use.

Counter-irritation by means of the ice-bag or thin mustard paste is of value in the few cases in which pleuritic pain requires attention. Beyond the relief of pain they furnish a mechanical embarrassment to respiration.

3. Measures for the Relief of Cardio-Vascular Distress.

Bleeding was used in two cases of extreme cyanosis with dilated right heart. It was repeated in each case and was of value in relieving the immediate distress in each instance. Both cases, however, terminated fatally, because the mechanical cause of the cardiac distress persisted.

Strychnine and whiskey were used separately or together in 57 cases; five cases are recorded in which the use of strychnine was discontinued because of muscular twitchings, with cessation of twitching in each case.

Whiskey, on the other hand, is perhaps of greatest value, because of its action as a cerebral sedative, soothing the restlessness of the little sufferer after the manner of the "night cap" in the insomnia of old age, and so providing the mental quiet necessary to physical rest.

4. Measures Directed to the Relief of Respiratory Distress.

Some interference with the function of respiration, shown by cyanosis, increased respiratory rate, or shallow respiratory excursion, is, according to our records, much the most important indication for treatment.

Expectorants were used in nine cases with recovery and in thirteen cases with death. Four instances are recorded of their being discontinued because of gastric disturbance. No record is found of any benefit to be ascribed to their use.

Steam inhalations have proven of value only in those cases where laryngitis or tracheitis were a feature. So far, no apparatus for the administration of steam has been used here, which has not the disadvantage of interfering with the circulation of sufficient fresh air.

Belladonna or atropine was used in nine cases, as follows:

In two cases in extremis; no result.

In one case of excessive secretion of mucus; no result.

In two cases as a respiratory stimulant; two cases report improvement, one case is negative.

In three cases as an antispasmodic in cough with a good result in each case.

Oxygen was used in nineteen cases, ten of which were fatal, while nine cases recovered. The results of its use are recorded as follows:

In two cases without effect.

In four cases it was administered in extremis without effect.

In thirteen cases improvement is noted in the lessening of cyanosis and diminution of respiration rate.

In nine cases with recovery the severity of the cases is shown by the average maximum temperature, pulse, and respiration, viz: Average maximum temperature, 104^{3}; pulse, 163; respiration, 64.

These rates are above the average severity as shown by a comparison with the table above.

It appears therefore that of all the means used for the treatment of broncho-pneumonia in this hospital, none have been more uniformly useful than inhalation of oxygen. I believe that in broncho-pneumonia the greatest need of the little patient is a plentiful supply of oxygen, whether we consider his need from the standpoint of limiting the bacterial growth, mitigating the effect of the toxins, stimulating the individual immunity, guarding against cardiac disability, or preventing respiratory failure. Most other therapeutic measures may be safely neglected in order to provide a plentiful supply of fresh air, and when fresh air is inadequate inhalation of oxygen will save more lives than drugs or local applications.

Toronto, June 8, 1908.

INFLUENZA AND ITS TREATMENT.

By G. C. H. Meier, M.D., New York City, N.Y.

Since the first severe epidemic of la grippe in the United States in 1889, which resulted in a large number of deaths, mostly due to pneumonia, there have been frequent repetitions, but it seems that the virulence of the disease has decreased or that a degree of tolerance has developed. The last occurrence during November and December, 1907, was especially mild; only in exceptional cases were acute nervous symptoms noted, and severe bronchitis, pneumonia and pleurisy were of comparatively rare occurrence.

As I have observed it, la grippe usually begins with slight chilly sensations, pain in the limbs or entire body and marked pain between the eyes. In most cases there is also present some coryza, with much sneezing and teasing, dry cough. The appetite is lost, the bowels are constipated, and there is a marked feeling of malaise and debility. The fever is usually characterized by slight fluctuation and rarely reaches a higher point than 103 F. when no complications are present.

A diagnostic feature is the marked prostration of the vital powers, even when the attack is of mild character. It generally takes the patient two to three weeks to recuperate, and often its exhausting effect persists for months. The complications and sequelae of la grippe, of which pneumonia is the most common and most serious, are numerous, and include inflammations of all the serous and mucous membranes of the body, constituting the chief risk in the debilitated, the aged, and those suffering from previous diseases.

In the chronic form a general neurasthenia, with mental depression, a peculiar irritability of temper, and sometimes hallucinations, is present.

In the treatment of this malady we know of no specific that will positively cut short the disease, but must rely on the indicated remedies, according to the existing symptoms. A solution of carbolic acid, 1 to 5 per cent., a teaspoonful every two hours, according to age, has been found to greatly modify the symptoms. Dr. Dessau treated 3,000 cases in this manner with satisfactory results. Oil of cassia (Ceylon) has been employed for 16 years by Dr. Ross in doses of 10 to 12 drops every two hours until the temperature becomes normal, and then three times a day for 3 days in 1-2 glassful of water; he claims exceedingly good results therefrom. I particularly insist, in all cases at the beginning of treatment, on a good calomel purge, usually 10 grains at a dose, placed dry on the tongue and washed down with a swallow of water. This need only rarely be followed by a saline cathartic, as usually it produces from 3 to 4 fluid stools within 6 to 8 hours after its administration. Cold applications to the head by means of ice-water cloths, renewed every 2 to 3 minutes for an hour at a time, are often very beneficial in lowering the temperature one or two degrees and in mitigating the headache. These applications are more certain to do this than an ice-bag, which in private practice is rarely retained on the patient's head long enough for the cold to penetrate to the deeper parts, and being usually placed on the top of the head the hair prevents in a great measure the cold from reaching the cerebral blood vessels. A thorough disinfection of the nasal and post-nasal spaces by douches or sprays will tend to arrest further infection from the bacilli lodged in these cavities. As the patient has little inclination for food, he should not be urged to take other nourishment than milk and seltzer or koumiss in small quantities for the thirst. Medication will be more effective, as in all acute diseases, when the digestive system is not overtaxed by broths, soups and other nourishment. After the bowels have been thoroughly emptied 10 to 15 grains of novaspirin every 3 hours will speedily modify the pain in the limbs and the headache, at the same time reducing the fever without producing depression. Although I have found that aspirin, when not given in excessive doses, was well tolerated by many patients, there were some who complained of gastric disturbances after its use. Since resorting to novaspirin I have encountered no instances of such an idiosyncrasy. The drug, however, has a somewhat milder analgesic power than aspirin, and in neuralgic cases it is necessary to use it in larger doses, and these in my experience were always well tolerated by the stomach. Its beneficial effect in influenza is seen by a rapid lowering of the temperature and an alleviation or disappearance of the pains between the eyes and in the limbs, which as a rule are such a disturbing symptom of la grippe. The disagreeable sweating which occasionally follows the taking of large doses of aspirin in some persons is not observed under the use of novaspirin. Its action on the heart also seems to be nil. Thus, it seems to me, that we have in novaspirin a remedy which combines with the good qualities of aspirin a lack of some of the disadvantages of the latter.

I report here a few cases of influenza occurring in my practice illustrating my present mode of treatment.

Case 1. G. M., aged 18, a school girl, was taken with slight chilly sensations and some headache and malaise on November 19th, 1907. Temperature 102; pulse 120; slight nausea. The patient was put to bed; 10 grains of calomel were administered, cold cloths were ordered to be applied to the forehead and changed every few minutes for an hour at a time. No food to be taken. November 20. Had vomited once during the night, quite restless, little sleep; now complains of pain in the limbs and back. Temperature 101 1-2; pulse 118. Bowels had moved three times toward morning. Ordered novaspirin, grains 15, every two hours, until more comfortable, then every three hours. Cold cloths to the head continued. November 21. Temperature 100; pulse 105. Slept several hours during the night; pain in the limbs greatly diminished and headache gone. The dose of novaspirin was reduced to 10 grains three times a day for another week, when patient was put on triple arsenates for a week. Recovery uneventful.

Case 2. D. P., aged 32, stock broker, was seized on November 15th with an attack of sneezing, coryza, and a severe pain between the eyes. Had chilly sensations and a dry, teasing cough. Complains of general malaise and pains in the limbs and back. Temperature 103; pulse 120. He was ordered to bed and given a nasal douche (Seiler's tablets) to be used every 3 hours. A dose of calomel, grains 10, was administered dry on the tongue. The cough was treated with codein, grain 1-4, every 2 hours. November 16. Cough somewhat better, nose more comfortable, but patient complains greatly of pain in his limbs and of severe headache. Bowels had moved twice. I now ordered novaspirin, grains 20, every 2 hours. No food, except milk and seltzer for thirst. November 17. Temperature 100; pulse 100. Pains greatly relieved; cough looser and less troublesome. Continued novaspirin, grains 10, every three hours. November 19. Temperature 99; pulse 100. Had some sleep during the night. Feels quite comfortable, but very weak. I prescribed syr. hypoph. co., a teaspoonful in a goblet of cold water, 3 times daily, before meals, and novaspirin twice a day; also ordered a laxative. November 21. Appetite returning, had a good night. Discontinued novaspirin.

Case 3. H. F., aged 45, housewife, was seized with vomiting during the night, chilly sensations and pain all over the body, also some headache. Temperature 102; pulse 110. Prescribed the usual dose of calomel and also novaspirin, grains 10, every 2 hours. No food. Mustard leaf to pit of stomach and cold to the head. December 17. Bowels moved once only. Ordered a dose of Rochelle salts. Pain in body much better, though some aching is still present: the headache has ceased. Temperature 101: pulse 100. Novaspirin continued every 2 hours. December 19. Temperature 99; pulse 80. No more pain; feels weak. Ordered triple arsenates, t.i.d. for a few weeks.

Case 4. B. T., aged 38, clerk, complains of severe headaches with pain in the limbs, also pain in the neck and back: chilly sensations. Ordered calomel, grains 10: tr. gelsemii, minim 5, every hour. Ice cloths to the head. Temperature 104: pulse 120. December 21. Temperature 103: pulse 120. Bowels moved 3 times. Vomited once. Pain and headache not abated. Ordered novaspirin, grains 20, every 2 hours. Mustard to the pit of the stomach. Cracked ice for thirst. No food. December 22. Temperature 101: pulse 118. Slept some during the night: no more vomiting; headache considerably relieved. Ordered novaspirin, grains 12, every 3 hours. Milk and seltzer for the thirst. December 24. Temperature 99: pulse 100. Patient is free from pain, feels well, but weak. Ordered triple arsenates, t.i.d., for a few weeks.

Case 5. S. H., aged 14, schoolboy, had an attack of vomiting on December 22nd, with chilly sensations and pain in the limbs. Temperature 102: pulse 110. Mustard leaf to stomach. Calomel, grains 8, dry on the tongue. Cold cloths to the head. Novaspirin, grains 12, every 2 hours. No food. December 23rd. Had a restless night, but feels much improved this morning. Bowels moved twice. Continued novaspirin in doses of 10 grains every three hours. December 25. Temperature normal; feels well. Gave a tonic.

Case 6. D. T., aged 47, grocer, had a tracheal cough for two days, with coryza and malaise, and complains now of severe pain between the eyes and aching all over. Chilly sensations. Temperature 103; pulse 120. Had already taken a dose of castor oil and a diaphoretic. Ordered novaspirin, grains 20, every 3 hours. No food. A nasal douche of Seiler's solution every three hours was given: for the cough heroin. December 28. Temperature 100; pulse 100. Pain much relieved; cough better. Slept some during the night. Ordered novaspirin, grains 10, every 3 hours; milk and seltzer for thirst. December 31. Feels well, but weak: no appetite: some cough remains. Ordered Moeller's cod liver oil, 2 drams after meals and syr. hypoph. comp., 1 dram before meals in cold water. Patient made a prompt recovery in a few weeks.

If a scalp wound extends through the periosteum it is safest to sew the periosteal wound at once and leave the scalp unsutured for twenty-four hours. Fracture should be excluded, if possible, before closing the periosteum.—*American Journal of Surgery.*

REPORT OF THREE CASES OF GASTRIC ULCERS WITH PERFORATION.*

By W. E. Olmsted, M.D., Niagara Falls, Ont.

I have the honor to bring to your notice simply an abbreviated report of some cases of gastric ulcer occurring in my practice. I do not intend to bore you by going into either the history or the etiology of the disease, neither shall I touch on the treatment, but I believe it is a fairly common disease—perhaps more common than is generally supposed, and one requiring a good deal of skill and patience to treat successfully.

Case 1. M. McB. Female. Aged 17.

Mother had died, I think, of tuberculosis. Father died of carcinoma of the stomach. Four sisters and two brothers well and healthy.

Patient had complained of pain in the epigastric region shortly after eating, which was often relieved by vomiting, the gastric contents being almost unchanged.

The case was not looked upon as serious at all, and the patient was allowed to go around and not specially limited as to her diet, coming to the office for treatment. One day, shortly after having taken dinner, she drove to the office, over some six miles of rough roads, and when I saw her she was suffering acutely from pain in the region of the stomach. She was placed in bed and died early next morning of acute peritonitis. No autopsy was allowed. In the light of later experience, I believe this to be undoubtedly a case of perforation of the stomach.

Case 2. E. D. Female. Aged 19. Unmarried.

Both parents were living, and the family history generally was good. The patient was apparently in good physical condition.

Her previous health had been good, with the exception of some slight pain in stomach after eating, but never so severe as to cause her to consult a physician. There had been no haematemesis.

One evening, after working hard at her household duties, she partook very heartily of supper, and was immediately seized with very severe abdominal pain and vomited apparently the entire contents of her stomach, which, on inspection, proved to be a heavy, dark, semi-solid, pultaceous mass, with no signs of blood present.

---

* Read at meeting of Ontario Medical Association, Hamilton, May, 1908.

The patient was found lying on her back, with thighs flexed upon the rigid and tender abdomen, and suffering most acutely. The pulse was rapid, and the temperature subnormal. The abdomen was, as I said, rigid and exquisitely tender on examination. Very hot applications were made and large doses of morphia given subcutaneously. Perforation of the stomach was diagnosed, a most unfavorable prognosis given, and an immediate operation advised, which was refused, and the patient proceeded to get well under hypodermic medication and rectal feeding. I consider that her salvation was due to the semi-solid consistency of the contents of the stomach preventing its escape into the peritoneal cavity.

Case 3. Mrs. W. S. Married. Living at Falls View, Ont. Aged 21. Height, 5 feet. Weight, 114 lbs. Born in Scotland.

Family History.—Father died at 61 of pneumonia, after nine days' illness; health previously good. Mother living at 71, well and hearty, and had always been so.

Four brothers well and healthy. One brother died of tuberculosis, aged 22 years; had been ill six years.

Of six sisters, one died of tuberculosis at age of 12 years, another at age of 22 died on fifth day of puerperium. The mother's one brother died of tuberculosis, and most of her mother's sisters had children die of tuberculosis.

Previous History.—Had always suffered from pain in stomach from childhood as early as she can remember. When 12 or 13 years of age an abscess formed on the right side of the neck, which opened spontaneously, discharging a thick pus, and healed in three or four months. Menses began after the abscess healed in about 13th year, and continued up to a recent date. The patient says she was always awfully constipated, and can distinctly remember on two separate occasions going without a passage or movement of the bowels for a period of *three weeks*, the first occasion 13 years ago, the second 10 years ago.

When about 14 years of age, her physician diagnosed gastric ulcer and treated her for it. She had been troubled with vomiting for years, the vomitus being watery, acid, and mucous. She was under the doctor's care for a few months, being in bed for six weeks, and given milk diet and purgatives, and improved under the treatment, but always suffered pain, especially after eating food difficult of digestion. Sometimes she would get on as well on a general mixed diet as on milk. During an interval of three or four years she enjoyed "just fair health," and at the age of 18 weighed 120 lbs., when she was seized with her second attack, ushered in by haematemesis, slight at first, but increasing to about a half-pint.

She also suffered severe pain and was ill a whole year, most of the time in bed. It was during this second illness that her bowels remained inactive for three weeks, and then the vomiting was especially severe. After recovering from this attack her health remained quite good.

On August 30th, 1906, she aborted at about three months, and from this time on till the middle of October she suffered from symptoms of gastric ulcer, especially tenderness under the zyphoid cartilage, hyperacidity of gastric content, pain after taking food, and constipation. I made a diagnosis of gastric ulcer and was then informed that she had previously suffered from that disease. She had no haematemesis at this time.

Under treatment consisting of rest in bed, liquid diet in small quantities, principally of milk, and free bowel movements by means of a solution of Carlsbad salts, chiefly, and the administration of a mixture of bismuth carbonate, magnesium carbonate, and sodium bicarbonate, she gradually improved, so that she could go about and do light housework.

I saw her again on October 30th, 1906, when she had the usual more or less gastric pain.

On December 10th, 1906, at 3.30 p.m., about six and one-half hours after eating some light bread and milk, she was suddenly taken with intense pain in stomach and left shoulder (note situation) and felt very weak. She felt great oppression and removed her corsets. Her lower abdomen seemed to fill up, and the pain in the left shoulder was intense.

When I reached her a few minutes after this happened she was sitting on a couch leaning forward, her thighs flexed on her abdomen, and complaining principally of her shoulder. It was with great difficulty she could lie down so that I could examine her abdomen, which I found very rigid.

Perforation of the stomach was diagnosed, operation advised and assented to, and preparations began. There was then no local hospital, and it would have been doubtful policy to move her.

Dr. Ingersoll Olmsted was summoned, but, owing to poor train service, was unable to begin the operation before 10 p.m., about six and one-half hours after the perforation occurred. The light was bad, and the so-called sterile water was worse than bad, leaving a heavy deposit of mud in the vessels upon standing, even after several strainings.

The Operation.

An incision 4 1-2 inches long was made in the median line below the zyphoid cartilage, the peritoneal cavity reached, stomach drawn up through the wound, and a perforation 4 mm. in diameter located on the anterior surface, near the greater curvature, in or near the so-called antrum. Gauze sponges were packed around the original incision, and the stomach manipulated so that the perforation and the surrounding band of cicatricial tissue brought to the edge of the folded viscus, isolated by two large rubber-covered Doyen's clamps, the ulcer and adjacent stomach walls rapidly excised by the scissors, the cut edges rapidly approximated by a fine continuous celluloid linen suture reinforced by two additional rows of Lembert sutures, and the stomach replaced. A drainage incision was made just above the pubes, Douglas' pouch opened, and several thick strands of iodoform gauze drawn from above down into the vagina. Upon opening the lower abdomen a considerable quantity of food material and milk escaped from the opening.

The superior incision was closed with interrupted silkworm gut sutures, the patient transferred to bed in the Fowler position, and enteroclysis given by the Murphy method.

The abdomen was not washed out, one reason being the very bad condition of the water.

The patient made an uninterrupted recovery; the superior wound healed by first intention, the drainage wound closed in good time, and I dismissed the case on January 25th.

The specimen removed presents the usual deeply punched out appearance, with deposition of a dense fibrous tissue, not unlike a bird's nest, and explains the utter futility of medical treatment in such cases. The patient has enjoyed excellent health since the operation, never having any symptoms referable to the stomach, and is, in fact, better than she has ever been.

Frequent applications of tincture of iodine on a "tooth-pick" swab will often heal a corneal ulcer where other means fail.

A small, hard, irregularly, nodular scalp tumor is very likely an endothelioma. A little section should be removed under local anesthesia for microscopical examination. If the diagnosis is corroborated, radical removal is necessary.

After an operation for extensive carbuncle of the neck, a comforting support may be supplied by placing under the bandage a piece of heavy manila cardboard (book-binders' board), wetted and shaped to the back of the head and neck.—*American Journal of Surgery.*

INTERMITTENT CONTINUOUS FILTRATION SYSTEM.*

By T. Aird Murray, C.E.

The object of this paper is to deal as concisely as possible with the leading features appertaining to a complete sewage purification plant for a small town of about 2,000 inhabitants. The method described is that known as the "Intermittent Continuous Filtration System," accompanied by preparatory liquefying tanks.

In general and in detail it is up-to-date, in accordance with the practice in Great Britain, and is of such a nature that it would receive the sanction of the British Local Government Board, which must always be obtained before money can be loaned for such purposes by any local sanitary authority in the Old Country.

A water supply is assumed at 60 gallons per head per day of twenty-four hours. This gives a dry weather flow of sewage of 120,000 gallons per day to be dealt with. The system as described will be capable, however, of taking five times the dry weather flow. Any surplus over this amount may be treated as storm water on land or flow direct into effluent channel.

Such a system as I shall now describe more in detail is planned with every consideration of economy to meet the requirements of localities not over-wealthy, and yet produce an effluent of a harmless nature.

The main characteristics of the system are as follows:

(*a*) A Screening Chamber.
(*b*) A Storm Overflow.
(*c*) Duplicate Liquefying Tanks.
(*d*) A Dosing Chamber.
(*e*) Three Continuous Sprinkler Filters.
(*f*) Effluent Drain.

Screening Chamber.

The sewage first enters a screening chamber 10 feet x 6 feet x 8 feet deep. Here a wrought iron screen of 3-8 inch mesh is provided to keep back heavy solids. There is no fixed size for this tank, but it is desirable that it be comparatively small, the main object being that the force of the incoming sewage may produce a boiling or swirling action, tending to break up solids by disintegration as far as possible: while the screen will keep back such obstacles as cans, scrubbing brushes, etc., the usual accompaniment of domestic sewage.

---

* Read at meeting of Ontario Medical Association, Hamilton, May, 1908.

Storm Overflow.

This apparatus is arranged between the above chamber and the liquefying tanks. The communicating pipe to the liquefying tanks is of such a diameter and gradient that when running full it will only take five times the dry weather flow, viz., 600,000 gallons per twenty-four hours, or 425 gallons per minute. During heavy storms the surplus passes over a longitudinal weir, level with the top of the above outlet drain, and passes away down the storm overflow pipe of a diameter equal to the difference between the above outlet drain and the main sewer entering the works.

This presents a simple method of dividing what may fairly be termed storm water of such a diluted character that special treatment is unnecessary. However, in cases where this overflow might pollute a drinking water source, it would be wise to provide some form of filter either on land or by means of a coarse filter tank.

Liquefying Tanks.

Presenting the third stage, are sometimes called septic tanks, this being a trade name, which has been applied to a covered-in cesspool. These tanks are arranged in duplicate, to allow of repairs and cleaning when necessary; otherwise they are in use in conjunction.

The joint capacity is made equal to twenty-four hours dry weather flow, the sizes in each case being 27 feet x 15 feet x 8 feet deep (10 feet at inlet end and 6 feet at outlet). The tanks may be either covered or otherwise. In frosty climates it is as well to provide a covering. It should however, be observed that a cover in no way assists the tanks in the duty they have to perform.

The work of the liquefying tanks, as their name proclaims, is to reduce organic solid compounds into their liquid forms by putrefaction. Heavy matter is precipitated by gravity to the tank floor, while light matter, such as grease, floats and forms a surface scum. The tank effluent being in a liquid state, is in a highly suitable form for treatment in nitrifying filters, without the liability of filtering media becoming choked.

In the construction of the tanks the principal object is to prevent as far as possible any undue disturbance and present a condition of stagnant quietude.

The sewage enters over a weir in the form of a thin film, the weir being the full breadth of the tank. The sewage, after it passes over the weir, is at once met by a projecting scum board, which dips about 2 feet into the tank. This prevents any surface disturbance of the tanks, while the thin film of sewage finds its way into the body of the tank 2 feet below the surface, presenting practically no disturbing influence to the precipitated matter on the floor. The outlet is arranged on precisely similar lines; the liquid sewage passing over a longitudinal weir with a protecting scum board.

Now, it should here be most emphatically stated that there is very little sewage purification takes place in the above tanks. A prevalent opinion exists that such tanks are sufficient for sewage purification. They, however, accomplish no such desirable an object. A useful liquefying action is certainly accomplished, with the aid of the bacteria, which assist in breaking up solid organic compounds. The effluent sewage, however, on analysis practically contains the same amount of chlorides, free and albumenoid ammonia, without any trace of either nitrates or nitrites, while the oxygen absorbed is practically the same. The effluent, in fact, is putrescent, and should on no account be turned into any natural water course, if the object be to avoid nuisance.

It is necessary to lay stress upon this point. Many towns are persuaded that, if they adopt liquefying tanks, they have solved the sewage problem, whereas they have only reduced a mass of unseemly sewage into a temporary appearance of seemliness, without reducing its dangerous condition as far as the health of the community is concerned.

Continuous Filters and Dosing Tank.

We now arrive at the principal stage in the sewage purification treatment. "Continuous filters" are so called to distinguish them from "contact filters." In the latter case the sewage was retained in contact with the filtering media in saturation for a given length of time in order to allow the nitrifying organisms a prolonged opportunity of acting upon the organic compounds. By the continuous method no such period of contact is allowed, apart from the sewage liquid percolating in driblets slowly through the media.

The main object is to obtain slow and even percolation and prevent flushing the filters with a weight of sewage. This is done by providing a dosing chamber, by means of which the sewage is presented to the filters in the form of intermittent doses. On the size and arrangement of this dosing chamber the successful working of the filters entirely depends.

With the older form of contact filters, it was generally determined that strong sewage, representing 30 gallons per capita per day of water supply, required one cubic yard of filtering media for each 168 gallons of sewage per 24 hours. With the continuous filter, however, accompanied with a dosing tank, one cubic yard of filtering media is capable of dealing with 500 gallons of sewage, and first-class results are produced.

As the main expense of sewage works appertains to the filters, their construction and media, it will be readily seen that an enormous saving is effected by the adoption of this more recent method of treatment.

It should be here pointed out that figure data does not always absolutely apply in every particular case. Sewage may vary less or more in its strength and constituents. The information supplied by the analyst is of the utmost importance in determining data, both as to construction and sizes of the various parts of a plant. The presence and character of trades effluents, if any, are also subjects for serious consideration. Let deputations hesitate, and all amateurs ponder, and not conclude because they have seen a sewage system working with satisfaction at the city of A. it will also without modifications be satisfactory for the city of B.

The figures here are, therefore, average in nature, and apply to a comparatively weak domestic sewage representing a water supply of 60 gallons per capita per day, as before stated.

The dosing tank should have a capacity equal to two gallons of sewage per super yard of filtering media, or, in other words, equal to 1-2 inch rainfall at each dose. The discharge is brought about by a simple form of automatic measuring valve. The tank should be made shallow, so as to expose the sewage to as much air as possible and allow area for settlement of any further organic matter in suspension.

Penstocks are fixed at each outlet to the filters, so that any one filter may be out of use on occasion.

There are three separate filters provided, each 50 feet diameter, with 8 feet depth of filtering media. The media should be of any hard, indissoluble character, such as furnace clinker, river bed gravel, etc. The top layer, about 3 feet of 4 inch to 5 inch cubes; the centre layer about 4 feet 1 inch to 2 inch cubes, and a base layer for draining purposes of about 1 foot of 3 inch cubes surrounding radiating tile or floor drains.

It is quite satisfactory to build the outer wall circle of the beds with large blocks of the filtering media. This should take the form of dry rubble walling, as open as possible to allow free access of air, and air pipes should be provided horizontally throughout the filter body at depths of 18 inches.

To obtain an even discharge over the whole surface of the beds the usual and most efficient method is by means of automatic revolving sprinklers.

The sewage from the dosing chamber passes, by means of iron piping, to the centre of each filter, and then up through an upright standard turbine construction, from whence it delivers into radiating perforated arms, which, revolving, act as spreaders, sprinkling the sewage over the whole surface of the bed. The power for this action is obtained from a hydraulic head by fixing the dosing tanks from 1 foot 6 inches to 2 feet above the level of the spreaders.

This practically completes what would be taken as an up-to-date sewage purification plant, and only an effluent drain has to be provided to discharge the water either to a water course or for purposes of irrigation. In Canada such filters would be the better of some wood covering to keep off severe frost. A system on the above lines was recently adopted at Berlin (Europe), and last year was unaffected during a winter showing 7 degrees below zero Fahr., apart from a covering to the outlet channel to the filters, when the sewage temperature showed a reduction to freezing point.

The cost of a plant of the above size and character for a population of 2,000 would run to about $10,000, viz., $5 per head of population: this apart from outfall sewer and cost of land.

THE TREATMENT OF DIFFUSE SUPPURATIVE PERITONITIS WITHOUT DRAINAGE.*

DR. MACKINNON (Guelph.)—" Before saying anything in the way of discussing the paper of Dr. Moore on this subject, I wish to express to him my real sympathy as to the result in the four cases he refers to. No surgeon who has operated for septic peritonitis can fail to realize the grave nature of the situation. If the disease be well advanced—acute, general peritonitis of many hours' duration—that death will result is the rule, and recovery the exception. This result does not necessarily imply any fault in the operator or in his methods. It will occur, no matter what method of operation—and without any deference to the skill or experience of the operator. I do firmly believe that the only hope for success in these cases is that the operation shall follow the infection as speedily as possible—not even a delay of hours, not to speak of days—and that the operator do his work as quickly as is consistent with proper surgery.

---

* Discussion on Dr. C. F. Moore's paper at Ontario Medical Association at Hamilton, May, 1908. (Paper published in August issue.)

That cases have recovered from general septic peritonitis, even though the operation did not follow until five to seven days, is no doubt true, but these must be rare, and the infection must have been far from virulent in character. It is the duty of the surgeon not to refuse the chance which an operation may give the patient in whatever stage it may be, unless moribund; but the friends should be given to understand that every hour since the infection began before operation diminishes the hope of recovery proportionately.

In a child of nine or ten, I operated for general septic peritonitis of seven days' duration, from a gangrenous appendix. The whole peritoneal cavity was full of pus. A free median incision was made and lavage, followed by drainage, one drain in each side, and one down in the cul-de-sac. An easy recovery.

I did the same operation for a man over fifty, who died in fifteen days from septic dysentery.

In a third case, where the small bowel was ruptured from an injury, and where the operation did not follow until 23 hours after the accident, the man made a difficult recovery after closing the rupture, free irrigation and drainage.

I shall not take the time of the association in relating other cases in which this treatment was carried out. I have faith in it, and, although others have obtained results possibly as good or even better, by closing up the peritoneal cavity after thorough irrigation, yet I have not seen any good reason to change my methods. I feel this way in the matter. If I had a case of acute general septic peritonitis—in which I found it necessary to irrigate the whole abdominal cavity—if I failed to drain afterward and the patient died, I would blame myself. In such a case I would surely drain. If the disease was caused by perforation of the appendix or of some diseased condition in the lower abdomen, I would put a good large drain down into the pelvis. If from rupture of the gall-bladder or perforation of a gastric or duodenal ulcer, I would also put one through the loin. If the result was fatal I would feel that I did all I could to save life.

With drainage I strongly approve of what may be called the Murphy treatment, *i.e.*, putting the patient in the half-sitting position and using continuous slow saline by rectum. With this method in several desperate cases I had excellent results.

I had a very singular case a year ago. A man of sixty was ailing for some months with pain in right side and increasing debility. After a time I found an obscurely fluctuating tumor where the liver should be. In my efforts to arrive at a correct diagnosis I used a medium-sized exploring needle and withdrew dark, thin fluid. Within two hours severe pain set in, involving the whole abdomen. In twelve hours the man was in great agony—evidently collapsed, pulse thready and rapid—the dullness less in liver region, but marked in lower abdomen, and the whole wall of the abdomen rigid. His condition put a general anaesthetic out of the question. I used a weak solution of cocaine and made a small median incision through a fat wall, and introduced a rubber drain. I kept him in the Fowler posture and gave continuous saline by rectum, about two quarts daily for two or three days. At least a half-gallon of dark fluid with thick brownish particles in it drained away at once on putting in the tube.

The patient's condition began to improve immediately, and by the third day was as well as before. He ultimately died from malignant disease of the right adrenal.

In closing I wish to congratulate the reader of the paper on the thoughtful character of it, but I regret I cannot agree, in the light I yet have, that it would be wise to discontinue drainage after irrigation in cases of acute general septic peritonitis.

Dr. G. A. Bingham.—Irrigate (1) when the peritoneum contains the contents of the holo viscera: (2) in fulminating cases where the peritoneum has not reacted, and there is no leucocytosis. Drain from the pelvis and flanks. Put the patient in Fowler's position and use the continuous saline.

Dr. N. A. Powell.—Drainage of an area infected from appendix disease may be by capillarity or tubularity, and is much promoted by syphonage. I secure this by leaving each strip used to build the cofferdam long, and leaving the split rubber tube with gauze also long, and bringing the outer ends over the hips. It is then imbedded in a large mass of gauze moistened with saline solution, and such drainage is efficient always and life-saving often.

Dr. W. E. Olmsted.—The wick cigarette so-called drain actually drained very rapidly by capillary action, so that a short drain would become moist at the free end a very few minutes after inserting it.

Dr. Wm. F. Metcalf (Detroit).—I wish first to compliment the essayist upon his paper. In its preparation he has shown much care and original thought. His conclusions are logical. I find myself compelled, however, to take issue with him upon certain points and to agree rather with Dr. MacKinnon. Dr. Moore very properly notes the lack of uniformity in statistics. This may be due to a difference in what is considered as general peritonitis. Some operators would thus classify all those cases in which the intestine is floating free in pus or is bathed in pus as far as can be seen from the incision, and in which no wall is building. If we accept this conception of the condition, then my statistics in the past year show 22 cases, with two deaths. Cultures were made from the pus in twelve of these cases, with the result that in six the colon bacillus was found alone, in two it was associated with the staphylococcus albus, in two it appeared with the staphylococcus aureus, and in two only a streptococcus was found. In the two fatal cases proper treatment had not been instituted until apparently the whole peritoneum had become involved; pus was everywhere in the cavity; the patients were suffering from extreme toxaemia, and agglutination of the intestines prevented drainage. If our definition is made to include only those cases in which the whole peritoneum is actively involved in the suppurative process, the mortality will then, in my opinion, be close to 100 per cent. Satisfactory drainage cannot under these circumstances be effected.

I think that irrigating fluids should not be used in the peritoneal cavity. The patient is suffering from the absorption of the products of bacterial growth. This absorption will be more rapid if the protective influences are broken down. Water, even in the form of the ordinary saline solution, is not normal to the peritoneal cavity, and its use in large quantity must lessen the vitality of the endothelium, and any effort at gross cleansing must be attended by a degree of traumatism, as well as the distribution of infection to parts that nature might otherwise be able to protect. There is no such thing as sterilizing the cavity, mechanically or chemically, and anything that puts the natural processes at a higher disadvantage than they are already laboring under is to be avoided.

All cases of peritonitis are virtually cases of perforation. Infection, gross or microscopic, has passed beyond the limits of the organ in which it has developed. This is usually some portion of the gastro-intestinal or genito-urinary tract. Recognizing this essential feature, it follows that incision should be made at the earliest possible moment over the seat of the lesion, if that can be determined; if the source of the infection remains uncertain, then incision should be made through the right rectus, near the median line.

If the case has been one of appendicitis, and the incision reveals the intestinal coils bathed in pus, even in the absence of any "walling off," I assume the whole peritoneum is not necessarily involved in the active inflammation, and lay a coffer-dam of moist gauze about the area of the original infection. This not only prevents the extrusion of the gut, but drains away the toxines held in solution in the fluids discharged. At the same time the formed elements of the blood are enmeshed in the gauze and the formation of a protecting "wall" is favored.

In this connection it is important to bear in mind the fact that if this gauze dam were removed before the fibrin and formed elements are liquefied, traumatism would be produced, as shown by a rise in temperature. If, on the other hand, the gauze be left in position for about eight days, it can be removed as easily as though it were soaped.

If a gross perforation is found, this, of course, is closed when possible. The gauze dam above described is then placed. A drain of split rubber tubing, enclosing a wick of gauze, is inserted to the most dependent portion of the cavity. The end of this tube is in some cases brought through a "stab" wound, thus allowing the complete closure of the original working incision. In some cases another tube is passed to the pelvis or the perirenal space.

The patient is put in the Fowler position and normal saline is given by the rectum. If toxic symptoms are marked the saline solution is given continuously per rectum by the "seeping" method; that is, the fountain syringe is kept about eight inches above the level of the anus, so that absorption progresses as rapidly as the solution enters the bowel, and accumulated gases are at the same time allowed free exit. This fluid, entering the portal circulation, is more immediately available than when introduced subcutaneously and its administration can be continued almost indefinitely. The fluids introduced by either method make easier the excreting functions of the skin and kidneys, while, with open drainage, secretion from the peritoneum is stimulated and absorption is correspondingly checked. The profession is indebted to Dr. J. B. Murphy for introducing this method.

The treatment of peritonitis is essentially prophylactic. This implies early diagnosis and early operation as is particularly illustrated in the case of acute appendicitis. In some cases the opportunity to save life will slip away if we wait for definite indications, in temperature, pulse, or local conditions. Such indications often become definite only when the case is hopeless.

So much has been written by eminent surgeons decrying the reliability of laboratory findings as an aid to diagnosis that, with your permission, I will report briefly one case. We shall better judge the value of such methods if we recall that our most important laboratory findings are those of the clinical thermometer. If we take other laboratory findings in the same open-minded spirit as we do, or should, those of the thermometer, we shall find that we can as ill afford to do without the one as the other. The value of either, in the average case, is to be found only in relation to the other signs and the general clinical picture.

This patient, a man of 37, had been treated for many years for liver trouble. He was taken one morning early with excruciating pain in the region of the gall-bladder. His temperature in the afternoon was 100 degrees. I saw him first at 8 p.m. of the same day. He said that his pain had suddenly ceased about one-half hour before. His temperature and pulse had returned to normal. Tension of the right rectus muscle was marked. Aided by the history, the most significant incident of which was an attack of "inflammation of the bowels" of three months' duration in childhood, I told him that his trouble was an attack of appendicitis, and that the reason for the sudden relief of pain was either gangrene or perforation or both, or that the appendix had discharged its contents into the caecum, and that the necessity for operation could be positively determined by repeated blood examinations. During the night counts were made at intervals of two hours, and these showed both a gradual increase in the total number of leucocytes per cu. mm. and, fully as important, an increasing percentage of the polynuclear variety. Had the pain been relieved by an emptying into the colon, the count in both these aspects should have shown a decreasing rather than an increasing scale.

In the early morning his pulse and temperature were normal. I told the patient that if we waited for elevation of temperature, and the infective agent were the colon bacillus or a staphylococcus, a local abscess would probably form, and late operation save his life; if the streptococcus pyogenes or the bacillus pyocyaneus, he would die. He accepted immediate operation, and the findings were: (a) A long retro-displaced appendix, the tip of which lay behind the gall-bladder; (b) gangrene throughout its entire length and involving the adjacent area upon the caecum; (c) no "wall" nor any likelihood of one; (d) a pure culture of bacillus pyocyaneus in the pus in and about the appendix; and (e) extensive adhesions resulting from old inflammation.

The fact is here to be emphasized that the laboratory was the medium of obtaining data upon which I was able to make a clear and emphatic statement of his prospect and thus to save the life of the patient by not admitting the wisdom of further delay.

Finally, let it not be forgotten that the source of infection must be determined and removed before the active inflammation involves a large area. If this can be done, then even a widespread distribution of pus arising from a process still localized need not prevent us from saving nearly all our cases; but, if we insist upon *seeing* rather than *foreseeing* the classic signs and symptoms of the generalized process, then nearly every patient will die.

Proceedings of Societies.

MANITOBA MEDICAL ASSOCIATION ORGANIZE.

Diagnosed by a careful physician, the cases of the medical men from out of town, recently, would be described as a good time brought on by heavy doses of general good fellowship, superinduced by the large hospitality of the doctors of Winnipeg. To those who are not sufficiently versed in medical lore to catch the drift of this, it is explained that the Manitoba Medical Association, which is now actively put into operation, held its first banquet recently at the Royal Alexandra. The local doctors were the hosts and the doctors from out of town the guests, and the dinner made a fitting climax to a day of important progress in the medical history of the province.

The feature of the dinner was Dr. H. H. Chown's stirring address on the necessity for greater effort on the part of the medical profession of Manitoba to combat the encroachments of tuberculosis. Prof. Gordon Bell, of the Manitoba Medical College, went into the history of the movement for a sanitorium in this province and explained as best he could the reason why the progress in securing this institution had been so restricted. Dr. J. R. McRae criticized the procrastination of the committee sharply and sarcastically.

Nearly 200 members of the newly-formed society were present at the dinner, which was served in excellent fashion, in the Royal Alexandra's big banquet hall. Dr. J. R. Jones, President of the Association, acted as toast-master, and in his speech he extended welcome to the visiting doctors and congratulation to the members of the Association as a whole. He mentioned, in a complimentary manner, the work done by the former secretary, Dr. Kenny, and impressed upon the members the duty they owed the new organization.

Dr. John Howden sang, "When the King Goes By," and Dr. R. J. Wilfrid Good, in a witty address, proposed the health of the guests. Dr. John A. Macdonald, of Brandon, replied cleverly, and C. C. McGlashan strengthened his reputation as a singer of Scottish songs, by rendering "The Laird o' Cockpen." Dr. Macdonald then rose and asked permission to propose the health of the hosts. Dr. Patterson spoke to the toast very gracefully.

Referring to a remark made by Dr. Good, who had described himself and Dr. Patterson and Dr. Jones as "prehistoric physicians," Dr. Patterson said he recalled when he and Dr. Good graduated. Dr. Patterson said that he began with a few blue pills and a lancet, while Dr. Good, who aspired to be a surgeon, considered himself fully equipped with a bucksaw, a butcher knife, a tourniquet, and an upholsterer's needle. In those days blue pills had to cure many ills; in those days operations were painful, bloody, and mostly fatal. To-day there were medicines for every illness and instruments for every disease. To-day operations are painless, bloodless and mostly successful. Thus, Dr. Patterson said, could the steady and rapid advancement of medical science be traced.

Dr. Swan sang "Mandalay," and Prof. Gordon Bell then took up the subject of the dreamed-of sanatorium. Dr. Bell reviewed the history of the movement from the first, and told how about $30,000 had been promised from the various parts of the province in support of the object. According to Dr. Bell, everything went well until the death of Dr. McInnis, when the trouble began. Prior to Dr. McInnis' death a site had been selected at Ninette and everything was going well. After his death, however, many of the committee which supported him in his choice of the Ninette site declared that they had done so only because of his personal ability to make the scheme go anywhere. A new vote was taken, and it was decided to look for a site nearer Winnipeg. This was the fatal move, Professor Bell said, as letters began coming in from all parts of the province recalling former subscriptions in the event of a change in the site. Finally, however, the Brokenhead River was suggested, but at the first meeting objections were taken to this and no full meeting had been secured since. It was hoped to have all the members together soon and take some definite steps.

In conclusion, Prof. Bell declared that the members of the new Association could do much by individual effort. They should realize their duty in regard to the fighting of the White Plague. They should take more pains to explain to those who do not know, that consumption is a curable disease, an unnecessary disease, and that it is much better to cure the sufferer than look after his family when he is gone. No man with a curable disease should be allowed to die for want of an insignificant amount of money.

In responding to the speech of Prof. Bell, Dr. McRae criticised the dilatory work of the sanatorium committee. He had had, he said, a dim memory in the long ago of the mention of some plan to secure a sanatorium for Manitoba. He had forgotten all about it, however, until he heard Dr. Bell mention it, so long was it since he had heard it spoken of.

Dr. McRae went on to explain that scientists claimed that in Alberta the altitude and meteorological conditions combined to produce a great abundance of electricity, which, acting upon the people living in that province, caused them to have an extraordinary supply of nervous energy. Dr. McRae recommended to Prof. Bell the idea of taking the committee out to Alberta for a season to see if it would effect some change for the better in their capacity for doing things besides talking. Talk would never build a sanatorium, Dr. McRae concluded, and the general opinion was that it was high time something definite was done.

Dr. H. H. Chown, who has but recently returned from the International Tuberculosis Convention at Washington, D.C., said that he had come home with greater enthusiasm than he had ever had before. He spoke of the opinions of a German expert, who, although there had been a 20 per cent. reduction of the disease in Germany, did not advocate sanatoriums, but held out strongly for free dispensaries among the poor and illiterate classes. In these dispensaries the poor are taught how to cook and prepare their food, how to treat the sputum, and how to hygienically regulate home conditions so as to best overcome the tubercular tendencies. In the United States last year there had been 200,000 deaths from tuberculosis—more than quadruple the fatalities resulting from all other infectious diseases. If Canada was to progress she must copy the older countries, and Dr. Chown emphasized the necessity for every doctor in the province to work hard in favor of free dispensaries as a means of combating the evil. Manitoba, he declared, is to-day one of the most backward portions of the civilized world in the fight against consumption. She had done practically nothing, and the doctors had been remiss in their duty.

Dr. R. D. Fletcher sang two songs in excellent style, and the dinner ended with "Auld Lang Syne."

Afternoon Meeting.

The meeting of the afternoon in the breakfast room of the Royal Alexandra was largely attended, about one hundred doctors being present. The business considered at the session was the adoption of the constitution and the election of officers. The constitution set forth the objects of the Association and prescribed the methods of procedure, etc. The election of officers was rapidly concluded, all the positions being filled by acclamation, with the exception of that of secretary, for which there were two nominations, Dr. Kenny and Dr. Halpenny. The list of officers chosen was as follows:

Dr. J. R. Jones, President; Dr. Macdonald (Brandon), Vice-President; Dr. McRae (Neepawa), Second Vice-President; Hon. Secretary, Dr. Halpenny; Hon. Treasurer, Dr. Kenny; Executive Committee—Dr. Hicks (Griswold), Dr. D. G. Ross (Selkirk), Dr. Keele (Portage), Dr. Speechly (Pilot Mound), Dr. Harrington (Dauphin); Auditors, Dr. Blanchard and Dr. Moody.

During the day the constitution was signed by the first members of the Association, and the following physicians of the province were enrolled: W. Harvey Smith, William Rogers, H. P. H. Galloway, J. O. Todd, G. Ross (Selkirk), Mary E. Crawford, J. H. O'Neill, J. A. Devine, William Chestnut, J. R. C. de Lorimer, A. D. Carscallen, D. H. McCalman, L. P. Gendreau, Gordon Bell, G. A. Brown, D. S. Mackay, C. R. Gilmour, R. F. Rorke, H. Janke, James McKenty, A. B. Alexander, J. H. R. Bond, Fred. A. Young, E. Richardson, E. L. Pope, Raymond Brown, J. A. McArthur, J. R. Jones, Robert Mackenzie, John R. Thomson, J. A. Hamilton, James Pullar, James Patterson, J. J. McFadden, C. C. Field, A. V. Brown, R. Goodwin, W. Turnbull, Geo. Clingan (Virden), W. J. McTavish, H. E. Hicks (Griswold), J. R. McRae (Neepawa), R. N. Burns, E. S. Popham, J. Halpenny, C. E. Johnson, J. A. McGuire (Stonewall), John A. Macdonald (Brandon), Chas. Hunter, S. Peterson, H. H. Chown, A. W. Allum, N. K. McIver, Geo. P. Bawden, S. W. Prowse, S. J. S. Pierce, M. R. Blake, A. E. Walkey (High Bluff), A. W. Moody, G. E. Swallow, T. Beath, Henry F Gordon, Spurgeon Campbell, R. J. Blanchard, V. G. Williams, R. S. McMunn, C. T. Sharpe, R. W. Kenny, A. M. Campbell, Charles A. Ritchie, J. A. Gunn, H. P. Byers (Melita), R. B. Mitchell, E. J. Boardman, H. M. Murdoff, S. J. Burridge, H. W. Wadge, C. A. Mackenzie, R. M. Cumberland (Glenboro), W. Webster, P. H. Miller (Holland), H. A. Gordon (Portage), F. S. Keele (Portage), R. R. Swan, G. S. Mothersill, D. H. McCalman, James Duxbury, H. J. Hassard (Sidney), J. S. Howden, J. W. Good, G. Henderson, W. H. Secord, T. R. Ponton (Macgregor), H. C. Norquay, C. H. Vrooman, L. J. Elkin, N. Hutcheson, V. E. Latimer (Brandon), J. E. Coulter, N. J. McLean, L. A. Knight, J. T. Whyte, T. C. A. Walton, John Tees, W. A.

Gardner, J. R. Davidson, Walter L. Watt, Thomas Turnbull, R. G. Montgomery, H. J. Watson, Fred. J. Hart, W. R. Nichols, F. D. McKenty, R. F. Rorke, A. G. Meindl, E. W. Montgomery, E. A. Jones, Adam Clarke, C. E. Sugden, C. W. Clarke, and R. D. Fletcher.

In the morning a clinic was held at the medical college, sixty physicians being present. The surgeons operating were as follows: Dr. Bond, Dr. Harvey Smith, Dr. Galloway, Dr. Halpenny, Dr. Nicholls, Dr. Carscallen, Dr. Richardson. Dr. D. S. McKay, Dr. Elkin.

The Manitoba Medical Association was formed the previous morning, although formal organization was deferred till afternoon. Most of the physicians of standing throughout the province registered, or gave notice of their intentions to do so.

The morning session was devoted to a clinical discussion of interesting subjects. Dr. Harvey Smith spoke on "Nasal Deformity and Tonsillar Mycosis," Dr. Galloway on "Orthopedic Cases," Dr. Halpenny on "Septic Peritonitis with Pyonephrosis in Pregnancy," and Dr. Nicholls on "General Peritonitis." Dr. Nicholls also spoke on "Ventral Hernia Treated by Wire Palisade and Ectopic Gestation."

Dr. Richardson led the discussion on "Hydrocephalus with Spina Bifida," and Dr. Bell presented specimens. Dr. D. S. McKay spoke on "Hydatid Mole," Dr. Elkin on "Molluscum Contagiosum," and Dr. Bond on "Radiographs."

The pathological laboratory was open for inspection and the specimens were used in demonstrating.

The Canadian Medical Protective Association

ORGANIZED AT WINNIPEG, 1901

Under the Auspices of the Canadian Medical Association

THE objects of this Association are to unite the profession of the Dominion for mutual help and protection against unjust, improper or harassing cases of malpractice brought against a member who is not guilty of wrong-doing, and who frequently suffers owing to want of assistance at the right time; and rather than submit to exposure in the courts, and thus gain unenviable notoriety, he is forced to endure black-mailing.

The Association affords a ready channel where even those who feel that they are perfectly safe (which no one is) can for a small fee enroll themselves and so assist a professional brother in distress.

Experience has abundantly shown how useful the Association has been since its organization.

The Association has not lost a single case that it has agreed to defend.

The annual fee is only $3.00 at present, payable in January of each year.

The Association expects and hopes for the united support of the profession.

We have a bright and useful future if the profession will unite and join our ranks.

EXECUTIVE.

President—R. W. POWELL, M.D., Ottawa.
Vice-President—J. O. CAMARIND, M.D., Sherbrooke.
Secretary-Treasurer—J. F. ARGUE, M.D., Ottawa.

SOLICITOR,

F. H. CHRYSLER, K.C., Ottawa.

Send fees to the Secretary-Treasurer by Express Order, Money Order, Postal Note or Registered letter. If cheques are sent please add commission.

PROVINCIAL EXECUTIVES.

ONTARIO—E. E. King, Toronto; I. Olmsted, Hamilton; D. H. Arnott, London: J. C. Connell, Kingston; J. D. Courtenay, Ottawa.

QUEBEC—H. S. Birkett, Montreal; E. P. Lachapelle, Montreal; J. E. Dube, Montreal: H. R. Ross, Quebec; Russell Thomas, Lennoxville.

NEW BRUNSWICK—T. D. Walker, St. John; A. B. Atherton, Fredericton; Murray MacLaren, St. John.

NOVA SCOTIA—John Stewart, Halifax; J. W. T. Patton, Truro; H. Kendall, Sydney.

PRINCE EDWARD ISLAND—S. R. Jenkins, Charlottetown.

MANITOBA—Harvey Smith, Winnipeg; J. A. MacArthur, Winnipeg; J. Hardy, Morden.

NORTH-WEST TERRITORIES—J. D. Lafferty, Calgary; M. Seymour, Regina.

BRITISH COLUMBIA—S. J. Tunstall, Vancouver; O. M. Jones, Victoria; Dr. King, Cranbrooke.

Dominion Medical Monthly

And Ontario Medical Journal

EDITORS:

GRAHAM CHAMBERS, B.A., M.B. WALTER McKEOWN, B.A., M.D.

ASSOCIATE EDITOR:

T. B. RICHARDSON, M.D.

MANAGING EDITOR:

GEORGE ELLIOTT, M.D.

Published on the 15th of each month. Address all Communications and make all Cheques, Post Office Orders and Postal Notes payable to the Publisher, GEORGE ELLIOTT, 203 Beverley St., Toronto, Canada

VOL. XXXI. TORONTO, NOVEMBER, 1908. No. 5.

COMMENT FROM MONTH TO MONTH.

Canadian Medical Association—Report of the Special Committee on the Establishment of a Department of Public Health for the Dominion of Canada.—To the President and Members of the Canadian Medical Association.—As convener of your Committee on the establishment of a "Federal Department of Public Health," I have the honor to submit the following report:

From the beginning of the present session of Parliament, your Committee has endeavored to carry out the instructions of the Association. A memorandum containing, in résumé, the chief arguments in favor of centralizing, in *one* department and under the direction of *one* competent Deputy-Minister, all the sanitary services actually scattered in the various departments, was drafted and submitted to each member of the Committee, and subsequently an interview with the Honorable Prime Minister and his colleagues was secured, by Dr. J. B. Black, M.P., for the 3rd of March, 1908.

As a delegation from your Committee, Doctors Black, Jones, McIntyre, Powell, Thompson, Barr, Schaffner, Elliott, Chisholm, Cash and Lachapelle (convener), met the Right Honorable Sir Wilfrid Laurier and Honorable Mr. Sidney Fisher, to whom they were introduced by Dr. Black. The convener of the Committee presented to the Honorable Premier the memorandum which is appended to this report (memo. published in our issue of April), adding what explanations and remarks he deemed useful. Doctors R. W. Powell, George Elliott, Carleton Jones, J. B. Black, F. L. Schaffner and Wilbert McIntyre also joined in the discussion, insisting on all the chief arguments in favor of the establishment of a Federal Department of Public Health.

On the invitation of the Honorable Prime Minister, the Honorable Mr. Fisher addressed the delegation and told the Committee of the great interest the Government was taking in this most important question of centralizing, into one department, all of the various sanitary services, as recommended by such a competent body as the Canadian Medical Association. He mentioned that there were difficulties in starting the desired reform, but, however, ended his remarks by stating that, whatever the difficulties were, he was of opinion that the advantages the reform would bring would well compensate them.

The Honorable Premier thanked us for our presentation of the case, and assured us that our request would receive all due attention.

According to the instructions contained in the resolution adopted by the Association at its Halifax meeting in 1905, your Committee had printed all resolutions of the Association and reports of its committees relating to the question of a Federal Department of Public Health, and had copies distributed to the members of the Cabinet, the Senators and the members of the Commons, also to the medical periodicals and the medical societies in all the provinces of Canada. A copy of the pamphlet is annexed to this report. (Previously published.)

Before ending, I might mention that Dr. J. B. Black, a member of the Committee, has called the attention of the Parliament to this question and brought out a debate in the course of which he and other members of the Commons laid stress on the arguments for the establishment of a Public Health Department. The debate was adjourned, and when it will be resumed, we hope the Government will be in a position to express its views on this important question.

Allow me to thank you, in the name of my colleagues, for the confidence shown us in asking us to continue the work necessary to bring to a solution a question in which the Association takes so much interest, and which our predecessors in office have so earnestly and invariably so well handled.

On behalf of the Committee,

(Signed) E. P. Lachapelle, *Convener.*

The Democratic Platform, we are told by *The Medical Council,* and *American Medicine,* contains the following strong plank: "We advocate the organization of all existing national health agencies into a national bureau of public health, with such power over sanitary conditions connected with factories, mines, tenements, child labor and other subjects, as are properly within the jurisdiction of the Federal Government, and do not interfere with the power of the State's controlling public health agencies." When one of the great political parties of that great commonwealth to the south of us, considers a public health bureau of sufficient importance to help construct its platform, it shows progressiveness of a distinct character. Surely in another Dominion general election this factor will figure in the practical politics of either political party. The medical profession and Parliament need a man to espouse this cause and to carry on an educative and convincing campaign in its behalf.

It will come sooner or later, as Sir Wilfrid said to the Canadian Medical Association at Ottawa: "It is only by knocking at the door that the door will be eventually opened."

Congratulations to the Ontario Government, or probably properly to the Honorable, the Provincial Secretary. The doctor-politician has got the bump at last—a member of the staff of the Hamilton Provincial Hospital has been installed in succession to the late Dr. Hickey, of the Cobourg provincial institution. Although the public press says "temporarily," surely if it is not made permanent it will be owing to the fact that some one else is slated for promotion. The medical profession, but the patients particularly, may exclaim: Thank God! the day is going or gone, when the best qualification for practising psychiatrics in this province was political activity and pull.

A Western Newspaper finds fault with one of Toronto's most able and respected specialists because he did not jump and run with his stomach tube and antidotes to a case of poisoning when vehemently urged to do so. Apparently, the epicurean editor does not believe in specialists. He would have a nose and throat specialist do Whitehead's operation on a moment's notice; an eye and ear man a prostatectomy; a gynecologist, tracheotomy; every one with an M.D. treat everything from the pip to the pox, great or small. He is over twenty-three years behind the times in medical knowledge—but, skiddo. If D. McG's house were on fire at 2 a.m., would he get up and put it out with his tears? Yet this is on a par with his senseless criticism. Such criticism, however, would almost go to show that specialists should have it stated on their signs what particular practices they are confining their work to.

Koch still insists that bovine tuberculosis differs from human tuberculosis, as first expounded by him in London, in 1901. With his adherents he stands in the minority. Although a heart-to-heart discussion was held *in camera* at the recent Washington Tuberculosis Conference, it failed to produce any unanimous agreement on the subject. The majority—and many eminent scientists are included in this—hold that tuberculosis in cattle constitutes a most serious menace to public health. It is a matter of the most vital importance, and Professor Koch and other scientists will have to go deeper into their researches and observations, in order to satisfy both the medical and lay mind.

The Local Use of Epsom Salt is a new and interesting, as it appears to be a successful, topical treatment in up-to-date therapeutics. It is being extensively used in hospitals in the United States in acute and sub-acute inflammations of the skin, and in erysipelas. The technique is extracted from *The Medical Council.* The application consists of a saturated solution of mag. sulph. in water. This is applied in facial cases on a mask consisting of from fifteen to twenty thicknesses of ordinary gauze, of sufficient size to extend well beyond the area involved, a small opening being made to permit breathing; no opening, however, is cut for the eyes. The mask is then thoroughly saturated with the solution, applied and covered with oiled silk or wax paper, and wet as often as necessary to assure a moist dressing—usually once in two hours, depending on the time of year, or the temperature of the room. The dressing should not be removed oftener than once in twelve hours to permit an inspection of the parts, and then immediately re-applied; the infected area should not be washed while the treatment is employed. The temperature rapidly falls and usually becomes normal during the second twenty-four hours. The only other treatment needful, in the average case, is a milk diet until the temperature is again normal.

It is said that the chief of one of Philadelphia's largest out-patient departments has given instructions to his workers to employ magnesium sulphate in all cases of ivy poisoning, erysipelas and, in fact, in inflammations generally of the skin.

Mr. Kipling and the Doctors is the title of an article in October 10th issue of *The Spectator*. It is a comment on an address delivered by the eminent *litterateur* to the students of Middlesex Hospital in praise of the doctors. Coming from such a source it is refreshing. It is said his words have been read by the public with delight and his auditors were thrilled with burning pride in their profession. The doctors and their patients divide the world into two classes; the non-combatants, the patients, eagerly watch the efforts, in their behalf, of those who were always in action, "always under fire against death." Mr. Kipling said that this fight for life was *one of the most important things in the world.* (The italics are ours.) Did but the public realize this, and governments in particular, with regard to tuberculosis and other diseases the doctors were fighting! They reported for duty at once in all times of flood, fire, famine, plague, pestilence, battle, murder and sudden death; they could pass through the most riotous crowds unmolested when they were known, or stop a ship in mid-ocean to perform an operation; houses were burnt up or pulled down on their order; they dared tell the world facts. Mr. Kipling says they are paid to tell the truth; Dr. Oliver Wendell Holmes once told a graduating class they might sometimes venture on lies as justifiable in the interests of their patients. Truly we doctors have a wide latitude. The writer in *The Spectator* goes on and elaborates Mr. Kipling's address. We are told we belong to the "privileged" and the "ruling" classes as well; that judges' sentences upon criminals, the whole machinery of state, great projects of reform, cabinet council deliberations very often hinge upon the judgments of the doctors. Men and women, rich and poor alike, obey his mandates. But we are later told that with all our powers the prizes to us are few. One thing, however, long known to the medical profession, startles the public —the highest death-rate of any profession in the world! And, indeed, each and every one has time and again heard the salutation: "You shouldn't get sick!" "You shouldn't catch cold!" The doctors run more risks of untimely death, defend people's homes from invisible foes, bring hope and sleep in the worst hours of pain, see life exactly as it is, daily risk their lives for others, run great chances with their families, keep patients' secrets, and do it all unconsciously of their own individual selves; yes, and as a body, often have to carry the sins of the black sheep in the flock. The profession, as a whole, will not fail to return its appreciative thanks to Mr. Kipling as well as to *The Spectator*.

News Items

British Columbia continues an active campaign against tuberculosis. Two pamphlets have recently been issued to the teachers and school children of that Province.

The Montreal League for the Prevention of Tuberculosis will receive a donation of $50,000 from Lt.-Col. Burland of that city, on condition that the League will raise an endowment of $50,000 to provide for the support of the institution.

Mr. Frank A. Ruf. President and Treasurer of the Antikamnia Chemical Co., St. Louis, has recently been decorated by the Shah of Persia with the Imperial Order of the Lion and the Sun. Mr. Ruf is a collector of Persian textile art treasures.

The "American Woman," is the title of an article in *The Spectator* by Dr. Andrew MacPhail. editor of the University Magazine and the Montreal Medical Journal, which has attracted considerable attention in England and the United States.

A clean milk supply for Toronto is being agitated for on the part of the Academy of Medicine and those members of the Milk Commission of the Canadian Medical Association. At the meeting of the section on Public Health of the Academy, on the evening of the 20th of October, Dr. J. A. Amyot gave an address which included certified milk, inspected milk and tuberculosis and milk.

Publishers' Department

Anemia and its Relation to Catarrhal Inflammation.—No disease is more common than chronic inflammation of the mucous membranes. Doubtless many causes contribute to the prevalence of this malady which spares neither the young nor the old, the rich nor the poor, the high nor the low. Prominent in its etiology, however, are sudden climatic changes, the breathing of bad or dust-laden air, bad hygiene in personal habits, and bad sanitary surroundings. These factors all singly or collectively tend to lower the vitality of the whole human organism, and as a consequence the cells throughout the body perform their various functions imperfectly, or not at all. The quality of the blood becomes very much lowered, with the result that tissues that have important work to perform, do not receive sufficient nourishment and so falter from actual incapacity. The red blood cells are reduced in numbers and the hemoglobin is likewise diminished. Because of the blood poverty the digestive process is arrested, nutritive material is neither digested nor absorbed, and a general state of inanition ensues. It is not surprising under these circumstances, therefore, that chronic inflammation of the mucous membranes is produced. These highly organized structures with very important duties to perform, naturally suffer from insufficient nutritional support, and the phenomena of catarrh follow as a logical result. Perversion and degeneration of the cells in turn takes place, and more or less permanent changes are produced in the identity and function of the tissues. Appropriate treatment should consist primarily in correcting or eliminating all contributing factors of a bad hygienic or insanitary character. The individual should be placed under the most favorable conditions possible and every effort made to readjust the personal regime. Local conditions of the nose, throat, the vagina, or any other part, should be made as nearly normal as possible by suitable local applications or necessary operative procedures. Then attention should be directed immediately to improving the quality of the blood, and thus increase the general vitality. For this purpose vigorous tonics and hematics are desirable, and Pepto-Mangan (Gude) will be found especially useful. Through the agency of this eligible preparation, the blood is rapidly improved, the organs and tissues become properly nourished and accordingly resume their different functions. Digestion and assimilation are stimulated and restored to normal activity, and the various cells and organs start up just as would a factory after a period of idleness. In fact, Pepto-Mangan (Gude) supplies the necessary elements that are needed to establish the harmonious working of the whole organism. When this result is achieved, the catarrhal condition is decreased to a minimum and distressing symptoms are banished, a consummation that is highly gratifying to every afflicted patient, and every earnest practitioner.

THE IMPORTANCE OF LECITHIN to the organism is demonstrated by its thorough distribution throughout the animal and vegetable kingdoms, and its value as a therapeutic agent is being appreciated more fully day by day, as experimental work progresses and opens up new fields for its usefulness. Lecithin has been given with satisfactory effects in anemia, rachitis, tuberculosis, diabetes, and in nervous breakdown, and recent reports show that much is to be expected of it in syphilis and locomotor ataxia. In the latter ailment, pains were alleviated and other signs disappeared, and one author comes to the conclusion that the loss of lecithin due to syphilitic toxin might bring on general paralysis and phthisis. Lecithin in its best form is furnished under the name Lecithol (Armour), a palatable emulsion, containing one grain of pure lecithin to the drachm. Lecithol is superior to the hypophosphites, glycerophosphates and other inorganic combinations, which are not converted into lecithin in the system and which are excreted as phosphates.

Where There is a Burning sensation when urinating, sanmetto in teaspoonful doses three or four times a day usually gives relief. If the urine is alkaline, ammonium benzoate in connection with sanmetto will prove helpful, and citrate of potash when the urine is acid.

The Varieties of Dysmenorrhoea.—In an article on Dysmenorrhoea, Solomon Henry Secoy, M.D., of Jeffersonville, Ind., refers especially to its causes and treatment, and offers some valuable suggestions as follows: "I am in the habit of regarding dysmenorrhoea as capable of division into three varieties. They are the neuralgic, the obstructive, and the membranous. The neuralgic form is a pure neuralgia, and its subjects, in all cases, will give a history upon which we can base its cause. These patients will tell us that never, prior to the attacks which they have recently undergone, have they had dysmenorrhoea. It is caused generally by malaria and other influences which tend to lower the general health. The treatment of dysmenorrhoea very naturally comprises such remedies and procedures as will correct the cause, and the administration of anodynes to relieve the pain. In the neuralgic form we must correct the cause. If that be malaria, quinine must be given. In most cases where the neuralgic form is presented, there is anemia, and no relief will be secured till this factor is overcome. Iron in some available form must, therefore, be given. During the period of menstruation the administration of antikamnia and codeine tablets

For COUGHS and
THROAT IRRITATION

PINOCODEINE

"FROSST"

Each fluid drachm contains:—Codeine phosphate ⅛ gr. combined with Pinus Strobus, Prunus Virginiana, Sanguinaria Canadensis, Populus Balsamifera and Chloroform.

As a routine expectorant, it is the same reliable product that has had the support of the profession for the past eight years.

STOPS COUGHING,
ALLAYS IRRITATION,
ASSISTS EXPECTORATION

Perfectly safe with patients of any age.

For GRADUAL or
SUDDEN HEART FAILURE

Elixir Digitalin Co. "Frosst"

Each fluid drachm contains:—Digitalin 1-100 gr. Nitroglycerine 1-100 gr. Strychnine 1-50 gr.

The original product that has created the demand for this energetic stimulant.

CHARLES E. FROSST & CO.
MONTREAL, CANADA

in doses of two tablets every two hours, will relieve the pain. If these tablets are given at the beginning of the attack, we can often entirely prevent pain."

The Neutralization of Dyscrasia.—In a very excellent article on "Various Forms of Headache," which appeared in *Medical Progress,* a short time ago, Dr. J. U. Ray, of Blocton, Ala., states that "We must not only be particular to give a remedy intended to counteract the cause which produces headache, but we must also give an anodyne which will relieve the pain until the constitutional dyscrasia, to which this trouble is due, has been neutralized. To answer this purpose, two antikamnia tablets will be found a safe and convenient remedy. Usually they relieve the pain within twenty minutes. When we have a patient subject to sick headaches, we should caution him to keep his bowels regular, and when he feels the first premonition of an attack, he should take two antikamnia tablets. Most all patients tell us they know by certain symptoms when an attack is about to come. To these patients we can do nothing better than give them antikamnia tablets to be carried around with them, always ready for use. They are prompt in action, and can be depended upon to produce the most soothing anodyne action. In this country, and also in England, these tablets are largely employed, with results that have caused them to be depended upon by the best observers in both countries. The remedy having none of the drawbacks common to other agents of this class, it is eminently fitted to be applied in the treatment of the cases just described."

Remarks on Glyco-Thymoline.—For many years past this preparation has been one of my mainstays in disease of the mucous membranes, and it has held its place despite the trials of many other agents warranted to supplant it by the advocates who decried Glyco-Thymoline when I spoke of its virtues. Space is now getting too valuable to waste with long detailed descriptions of separate cases, and anyhow I never did write in that manner—I think general remarks about agents is the better way and we need this more than stories of symptoms and temperatures, with daily alterations. No class of maladies is more troublesome than disorders of the mucous membranes, and none more difficult to eradicate thoroughly, and we have been put to our wit's end many times for remedial agents in such cases. The local treatment of catarrhs is frequently

THE HOUSE OF QUALITY
REGISTERED

Fairweather's
FURS

Skill in design and workmanship together with dependable quality in the skins are the merits upon which our Furs have become known all over Canada.

And we want the public to test our claims by careful examination and comparison with others.

Our stock of Fur and Fur-lined Garments, sets and single pieces, was never better than it is now.

Write for Fur Catalogue "L" which contains over one hundred illustrations of the latest Fur styles.

J. W. T. Fairweather & Co.
84-86 Yonge Street, Toronto

disappointing, and none more so than the prevalent one—post-nasal catarrh. Unless we can get an alterative condition established little good is done, and nothing has been of greater service to me than Glyco-Thymoline, locally and internally. In several hundreds of long standing and severe cases of this intractable and common affliction I have come to regard this preparation as a standard and almost routine remedy. I seldom care for a post-nasal trouble without prescribing it at the onset, and if I don't it is not long before it comes into use. It is just alkaline enough, just so as to the dialysis—(the action locally, with exactly the right amount of fluid excretion through the diseased membrane), just enough astringent without drying the parts, and just the right thing in the direct line of reparative work; it sets up tissue-building soon after the membrane gets somewhere near its right shape. Many things are employed in catarrh, but I firmly believe that if I was confined to one agent only, that would be Glyco-Thymoline. For years I used the so called antiseptic tablets of boric acid and glycerin, etc., with good results, but for a long time past this is thrown aside and the Glyco-Thymoline takes its place. I use it in about half strength with a K. & O. Nasal Douche, and from twice to four times daily. With this, in bad cases I give it internally, adding to it or giving separately, mercuric bichloride, and if done separately the menstrum is compound syrup of stillingia. In presumed syphilitic persons I always do this. In gastritis, chronic enteritis, vaginitis, gonorrhea and in recurring attacks of what in many instances is deemed appendicitis, I use this agent freely, and always with good results. As a local application to foul ulcers and especially to hemorrhoids I think this preparation is very good. In the nasty leg ulcers, which now and then defy all remedies, Glyco-Thymoline does wonders—it can't do harm any time, and I am almost persuaded to give it in all instances. In bronchitis and asthma it is fine; in spasmodic croup it fills the bill nicely; it does well in venereal disorders locally, and in balanitis it stops the trouble at once.—*W. R. D. Blackwood, M.D., Philadelphia, Pa.*

PROPHYLACTIC PRACTICE.—Some think that the therapy of the future will be mainly preventive or prophylactic practice, and adherence to only those remedial agents that have proved particularly efficacious. Sanmetto, if kept at hand, and always used upon the slightest manifestation of a threatening enlargement of the prostate gland, will prove prophylactic. It is particularly efficacious in prostatitis and in all inflammatory conditions of the genito-urinary tract.

Dominion Medical Monthly

And Ontario Medical Journal

Vol. XXXI. TORONTO, DECEMBER, 1908. No. 6.

Original Digest.

ACUTE HEMATOGENOUS INFECTION OF ONE KIDNEY IN PERSONS APPARENTLY WELL.

By T. B. Richardson, M.D., Toronto.

Under this title, a paper of more than passing interest, by Dr. Farrar Cobb, assistant surgeon to the Massachusetts General Hospital, appears in the November issue of *Annals of Surgery*. The subject has proved of especial interest to the writer on account of two similar cases which have occurred in his own practice during the last year—the first, that of a man of about 38, declined operation and is still occasionally subject to subacute attacks of pain; the other, a woman of 26, operated on, kidney incised and drained (not removed) has made complete recovery. As Dr. Cobb's paper is very complete, and his cases fully recorded, I shall content myself with as brief, yet thorough, a résumé of it as possible, rather than dwell on my own cases.

After stating that it is not well understood by the profession as yet that persons apparently in good health may suffer from septic infarcts of the kidney (usually due to the colon bacillus, circulating in the blood), Dr. Cobb goes on to show that infection of this kind is of two varieties, in so far as its origin is concerned, viz., ascending, the urogenous type, and infection, from the blood—the hematogenous type. It may take place also through wounds or by extension from other abscesses in the immediate vicinity of the kidney. The infection may be carried, in the form of minute bits of infected tissue, to the kidney and arrested in some of the terminal vessels, or bacteria, circulating freely in the blood, may be deposited in like manner in the kidney.

Recent experimental research seems to prove that the majority of the organisms introduced into the circulation are destroyed before reaching the kidneys, and that while many bacteria are eliminated by the urine, it is unusual for them to lodge in the kidney, if the kidney and ureter are normal. Micro-organisms may be thus excreted without in any way injuring the organ; thus bacteria in the urine of typhoid cases does not necessarily mean renal infection. Sampson, of Johns Hopkins, performed a series of experiments on dogs, in which he tied the ureter of one kidney and injected pure cultures of staphylococcus into the jugular vein. He found that bacteria were eliminated to a certain extent by the urine, but only in those cases in which he tied the ureter did the kidney become infected. Brewer, later, in a series of experiments on dogs, found that not only obstructing the ureter, but bruising the kidney caused infection. In addition to the intestine, the bladder, prostate gland, and the uterus and its adnexa are additional possible sources of bacterial infection of the kidney through the blood. The blood-vessels of the kidney communicate with those of the bladder, aside from the general circulation, through two other channels, the utero-ovarian and the vessels of the ureter itself.

In persons apparently well, the onset is usually acute and without warning. The course of the disease may be rapid, with increasing toxic symptoms, or after an acute onset the patient may go for weeks or months in a septic condition. The very acute cases are the ones which simulate most closely abdominal infections. On the contrary, in a small number of cases infection may manifest itself by slight pain in the back, and long continued fever with or without pyuria, which symptoms may never lead to a suspicion of the kidney.

In advanced stages of renal abscess, it is difficult, if not impossible, to decide whether the infection came through the blood or lower urinary tract. Dr. Cobb cites the histories of eight cases, of which the first one—a fulminating case simulating gastric or duodenal perforation—is particularly interesting:

Rose H., 23 years old, married. Aside from children's diseases her previous history was unimportant. Had been married three years, and but for slight irregularity in menstruation and some leucorrhea and occasional "nervous attacks" had considered herself well. Had had no children and no miscarriages. Up to a few months before, she was constipated: since then the bowels have been loose, about three movements a day. She had noticed nothing unusual in the character of the stools. For three weeks previous she had not felt as strong as usual, and had been somewhat drowsy and stupid. She did not consider herself sick, however, and was able to work every day at her occupation, that of a saleswoman. Twenty-four hours before entrance to hospital through accident room, while at work in the store, she was seized with a sharp, stabbing pain in the abdomen, especially on the left side high up, which was so severe that she fainted. The pain increased in severity and became general over the abdomen. The most severe pain was described as starting just below the ribs on the left. radiating into the left groin. She required large doses of morphia during the night. The pain continued with increasing severity, accompanied by hard chills and frequent vomiting. After entering the hospital she had two chills and vomited several times.

Examination:—A fairly well-developed and nourished young woman. Somewhat anemic, evidently very sick. Nothing abnormal found in heart or lungs. The abdomen was everywhere extremely rigid and tender, the greatest amount of muscular spasm, however, was in the left hypochondrium. There was marked tenderness in the costo-vertebral angle on the left. Vaginal examination showed some tenderness and increased resistance on the left of the uterus, but no mass could be felt. Uterus normal in size and freely movable. Temperature 104 deg. F.; pulse, 140; poor quality. Leucocytosis, 26,000. Examination of urine showed no pus, blood or albumin. Neither kidney could be palpated, but attempts to palpate the left kidney caused exquisite tenderness anteriorly and posteriorly. While the symptoms and signs pointed with definiteness to an acute abdominal infection, probably gastric perforation, the marked tenderness in the costo-vertebral angle made me consider an infected kidney, yet because of the positive abdominal signs and the absence of blood and pus in the urine, it seemed wise to make an anterior incision first.

A short incision through the left rectus muscle above the umbilicus was made and the abdominal cavity opened. There was no evidence of peritoneal infection. The right kidney was normal in size and position. The left kidney was found to be enlarged and the perirenal tissue edematous. The anterior wound was rapidly closed and the left kidney cut down upon through an incision in the flank. It was covered with characteristic small dark and yellow spots, the multiple septic infarcts. The kidney was removed, the renal vessels having been tied with silk. A gauze drain was left in and the wound closed about it with chromicized catgut and silkworm gut. One pint of salt solution was given intravenously before the patient left the operating room.

The patient made a prompt and satisfactory recovery. Twenty-four hours after the operation, the temperature had dropped to 100 deg. F., and the leucocyte count to 16,000. Three days after the operation the temperature was normal and the leucocyte count 7,000. The wound drained a large amount of rather foul pus for two weeks, after which it healed without incident. Cultures from the infarcts showed pure colon bacillus infection."

The kidney may be infected by a variety of pus-producing micro-organisms. The streptococcus, staphylococcus, the typhoid bacillus, Friedlander's diplococcus, the bacillus of diphtheria, the bacillus pyocyaneus, and the pneumococcus, have all been isolated from renal abscesses. The most frequent infections are, undoubtedly, due to the colon bacillus and to pus organisms. In two of Dr. Cobb's acute cases, small stones were found embedded in one of the calices, in one a very small calculus on the floor of the bladder was discovered by the cystoscope, and in a fourth case a nephrectomy for stone had been done a year previously. In all probability a frequent cause is an abnormality of the ureter, due to stricture, the result of inflammation or calculi; in women, deformities in the ureter may be caused by pregnancy or childbirth. Infection, so far as known, usually comes from the intestinal canal, although it may come from the reproductive organs and lower urinary tract in the female, especially in those cases where old pelvic disease with intestinal adhesions is present.

Diagnosis:—In the acute fulminating cases there may be nothing pointing to the kidney except tenderness in the costovertebral angle—this, Dr. Cobb observes, has been a constant sign. These acute cases present an exact picture of an acute abdominal infection—sudden abdominal pain, tenderness, muscular spasm, vomiting, high temperature, pulse, and leucocyte count. In such cases, unless blood and blood casts, with or without pus, are found in the urine, or an enlarged and tender kidney can be palpated, a positive diagnosis cannot be made. In the less acutely sick cases the condition of both kidneys should be studied by ureteral catheterization and X-ray. Leucocytosis is always high in the acute cases, 18,000 to 36,000. It is Dr. Cobb's opinion that in acute cases in which positive evidence of the kidney cannot be obtained, it is better to make a preliminary anterior incision to settle the diagnosis and the existence of the other kidney as quickly as possible. Delay, even long enough for ureteral catheterization, may be dangerous. The presence of albumin, pus and blood in the urine, associated with tenderness in the costovertebral angle, and a high white blood count, should point to the kidney as the cause of the acute symptoms in persons previously in apparent good health.

The second case reported by Dr. Cobb, illustrating the type that is less acute in its onset and in which definite signs pointing to the kidney existed, is as follows:

"Mrs. M. E. S., 34 years old, married, white. Entered the hospital October 21st, 1907. Patient was never strong. In the last fifteen years she had been operated on three times for tuberculous glands in the neck and axilla. Last operation was in March, 1900. She had had one child seven years ago. Five years ago she had a miscarriage. Three weeks before admission she again miscarried and was curetted at another hospital, but was up and about at the end of a week, and considered herself in better health and strength than for two or three years. Five days before admission she was awakened at night with a severe pain in the region of the appendix. She called her own physician, who told her that her temperature then was 103 deg. F., and the pulse 110. During the following week the pain gradually subsided and her general condition improved, although she remained in bed.

Examination:—Thin, poorly nourished woman. Temperature on the day of entrance was 101 deg. F., and it varied between that point and 99 deg. F., until the acute attack six days afterward. Pulse, 110; fair strength. . . . The left kidney could not be palpated. The right kidney was distinctly enlarged, movable, and slightly tender. Nothing abnormal in the abdomen. No tenderness or muscle spasm could be made out *at this time*. Vaginal examination found nothing abnormal. X-ray plates of both kidneys showed no shadow of stone. Cystoscopy and ureteral catheterization by Dr. Lincoln Davis showed nothing pathological in the urine from either kidney *at this time*. Because of the tubercular history and the large kidney with the pain in the right side, a probable diagnosis of renal tuberculosis was made, although special examinations of the urine gave no evidence of it. Six days after entering the hospital the patient had a sudden severe attack of pain on the right side, with a temperature of 104 deg. F., and pulse of 120. The pain persisted and the high temperature was accompanied by chills. Leucocyte count 10,500. The right kidney was at this time very tender on palpation. Ureteral catheterization then showed that the urine from the right kidney contained pus, blood, and swarms of bacilli. There was tenderness in the costo-vertebral angle.

Operation by Dr. Conant, on October 31, ten days after entering the hospital, sixteen days after the first attack of pain in the right side, and three days after the acute attack, with positive signs in the urine and a markedly tender kidney. Through an incision in the flank the right kidney was removed. A gauze drain was left in. The kidney showed typical foci of infection of various sizes. Infection, colon bacillus.

Patient made a good recovery. At no time did the temperature rise above 100 deg. F. The remaining kidney performed its functions with entire satisfaction. Gauze drain removed on the fifth day." . . .

Dr. Cobb thinks it probable that some of the cases, especially those less acute in onset, may recover without operation. (One case under the care of the writer seemed to make a good recovery under the opsonic treatment. The infective agent in this case was also the colon bacillus.) He comes to the conclusion that: " Delay in operating, especially in those fulminating cases in which diagnosis is doubtful, cannot be justifiable. Delay for reasonable study and observation in the subacute cases will always be wise."

Treatment: This should always be by operation, even in the presence of severe sepsis. Recovery will be the rule if operation is not delayed too long. In the majority of reported cases nephrectomy has been the operation of choice. In three or four cases drainage of the infarcts with rubber tubes or gauze wicking has been successful. (A second case, under the writer's care, was treated by drainage. Temperature, 104 deg. F. at time of operation. Kidney (left) greatly enlarged and engorged, perinephric edema, but no pus found at time of incising the organ. No calculus found. Subsequently free discharge of pus and urine. Temperature fell steadily after the operation and reached normal in a few days. Patient made uneventful recovery. Sinus closed and patient left hospital about four weeks after operation.) Two of Dr. Cobb's cases recovered after treatment by drainage. One remained well, but in the other case it was necessary to do a nephrectomy subsequently because of stone. In very toxic cases in which the areas of infarction are numerous, so that the function of the kidney is seriously interfered with, nephrectomy must always be done. It is not advisable to remove an infected kidney through the anterior incision, on account of the risk of infecting the peritoneum, although this has been done once by Dr. Harrington, and quite successfully. Woolsey has reported a case in which the cortical substance involved only the lower pole of the kidney. He resected the infected third of the kidney, leaving the remainder. The infection was staphylococcus. Although this unique operation was successful, it can hardly be a safe procedure, even if the septic areas are so distributed as to make it possible.

Selected Article.

THE ACTION AND DOSAGE OF PHENOLPHTHALEIN.

By Warren Philo Elmer, M.D., Saint Louis, Mo.

Assistant Professor of Medicine, Saint Louis University.—*The Medical Record*

Phenolphthalein has been known as a purgative for about eight years,[1] but so little has been written concerning its physiological action and definite dose that it has not received the attention from the medical profession that it deserves.

In reviewing the literature the following problems present themselves: (1) What is the physiological action? (2) Has it toxic properties or is it broken down in the course of its passage through the body into substances which are toxic? (3) What limits, if any, must we place on the dose prescribed, and how is it best administered?

Valmosy[2] and Tunnicleffe[3] believe that phenolphthalein remains unchanged in the acid media of the stomach, but on reaching the intestine forms a sodium salt in the presence of the bile. This salt is said to increase the osmotic pressure in the intestine and thus to act as a hydragogue cathartic.

It is a well-known fact that phenolphthalein is much less active in dogs than in man, and Valmosy[2] explains this by saying that less of the sodium salt is formed in dogs.

With these statements in view, I performed the following experiments on dogs: Three dogs were selected, weighing 35, 25, and 7 pounds, respectively. The stools were carefully watched for ten days, the average number and consistency being noted. On the eleventh day phenolphthalein in aqueous suspension was administered by means of a stomach tube in doses of one grain per pound of body weight; *i.e.*, the 35-pound dog received 35 grains; the 25-pound dog received 25 grains, and the 7-pound dog received 7 grains. During the forty-eight hours following no change was noted either in the number or consistency of the stools, although phenolphthalein could be detected in the stools of all three dogs by the end of thirty-six hours.

On the fourteenth day 70, 50, and 14 grains, respectively, were administered in the manner described above, with the same negative result as regards the number and consistency of stools, although larger quantities of phenolphthalein could be detected.

On the seventeenth day doses of 95, 75, and 21 grains produced no noteworthy changes. On the twentieth day 140, 100, and 28 grains were given. Twelve hours later the 25-pound dog developed a moderate diarrhea (five stools in twenty-four hours), and examination of the urine showed traces of phenolphthalein. The consistency of the stools, while somewhat thin, was by no means watery.

The 35-pound dog showed no changes in the stools, but the urine gave a fairly marked reaction for phenolphthalein. The 7-pound dog showed no changes either in stools or urine.

On the twenty-third day, after a dose of 175 grains, the 35-pound dog developed a moderate diarrhea (seven stools in twenty-four hours). The reaction for phenolphthalein in the urine continued. The stools of this dog resembled those of the 25-pound dog, viz., thin but not especially watery. Phenolphthalein in large quantities and absolutely unchanged could be detected. The 7-pound dog at this time was given 40 grains without effect.

During this series of experiments the dogs were fed on boiled beef and bread, and allowed free access to water at all times. They were kept in roomy wire cages so placed that urine could be collected, and with a wire grating in the bottom, so that the stools were kept fairly well separated from each other. The general condition of all the dogs remained good; there was no loss of weight; in fact, the 7-pound dog at the end of twenty days had gained three-fourths of a pound. The appetite was unimpaired, and no evidence of any ill effects from the drug could be observed.

After a rest of ten days, a further set of experiments were undertaken, but in the meantime the 7-pound dog was accidentally killed, so that further experiments were performed on the 35-pound and the 25-pound dogs. The same quantities of phenolphthalein were again administered, this time suspended in 100 c.c. of N-40 sodium hydrate. After the first three doses the results were the same as in the previous experiments, except that the stools were streaked with the red sodium salt from twenty-four to thirty-six hours after each administration, and continued to be so colored for from twelve to twenty hours, showing that the sodium salt left the body unchanged.

After a dose of 95 grains the 35-pound dog showed traces of phenolphthalein in the urine. The urine of the 25-pound dog showed phenolphthalein after a dose of 70 grains. Both dogs continued to show small amounts as long as the experiments were continued, the urine never being free from it even at the urination previous to the following administration.

After 140 grains the 35-pound dog developed a moderate diarrhea, similar to that appearing after the administration of 175 grains of the watery suspension of the drug.

The 25-pound dog developed a similar diarrhea after 100 grains. The stools of both dogs were soft, but not watery, and contained considerable quantities of the unchanged phenolphthalein, together with the sodium salt.

After another ten days' rest, the 25-pound dog was given 70 grains suspended in 100 c.c. of 0.3 per cent. hydrochloric acid, without result; 110 grains produced practically the same results as previous suspensions of a like amount.

I conclude from the above experiments that while there is slightly greater absorption of phenolphthalein when suspended in N-40 sodium hydrate, there is not sufficient difference to warrant a conclusion that sodium plays any part in the purgative action of the drug. This conclusion is also strengthened by the results in the two cases of catarrhal jaundice reported below, where the bile was almost entirely absent from the stools. Suzzor[4] and Tunnicleffe[3] report similar observations in jaundiced patients.

As to whether the action of the drug is directly on the mucous membrane as an irritant *per se,* or indirectly as a hydragogue, I am not prepared to state; but, from the character of the stools, both in dogs and in man, I am inclined to believe that the action is that of a direct irritant, otherwise the stools should be more fluid.

In regard to the toxic properties of phenolphthalein, little can be found in the literature. Best reports a case of poisoning from a 15-grain dose, but I am unable to find the records of any other case of poisoning. My own experience with dogs, cited above, and the statement of Valmosy[2] that doses up to 1 grain per kilo of body weight can be given to animals without danger, would indicate that phenolphthalein is practically without toxicity for animals. In my experience four patients have taken 30 grains or more daily for at least two weeks, one taking from 30 to 60 grains daily for fourteen months without ill effect.

As to its fate within the body, according to Valmosy[2] 87.17 per cent. of all phenolphthalein taken by the mouth can be recovered from the stools. Allowing for the usual errors of such determinations, it would appear that practically all of the drug is excreted by the bowel unchanged. After very large doses small quantities appear in the urine.

If phenolphthalein were broken down, one would expect an increase of the aromatic sulphates in the urine; this, however, neither Valmosy[2] nor Tunnicleffe[3] was able to obtain. It should be borne in mind, however, that active purgation decreases the aromatic sulphates to some extent, so that these observations are not absolutely conclusive, but for practical purposes are sufficiently accurate. The statement of Suzzor,[4] that 0.3 grains will cause the drug to appear in the urine is not confirmed by the majority of observers, and was not true in any of my cases. For this reason Tumminia's[6] claim that phenolphthalein may be used as an indicator for the functioning power of the kidney is without foundation, at least, in the vast majority of cases.

My conclusions then in regard to the toxic properties of phenolphthalein are: It is not toxic in any dose that I have given it, and can certainly be given with safety up to twenty or thirty grains daily. It is not broken down within the body so far as can be determined. Best's case I am inclined to regard either as an idiosyncrasy, such as at times gives rise to statements of toxicity in regard to almost all drugs; or else the symptoms described were due to something else beside the phenolphthalein.

The more recent writers, as Tumminia, state that the dose of phenolphthalein varies greatly with different patients. To a certain extent this is true, but in 90 per cent. of patients the variation is not greater than with most drugs. A brief summary of one hundred and sixteen cases of various diseases, combined with constipation, and treated with phenolphthalein at the St. Louis University Dispensary and in private practice, will best illustrate this uniformity.

In one hundred and twelve cases the dose varied from one to ten grains daily, the average being 3½ grains. The above cases included the following conditions:

Chronic constipation without other symptoms other than those referable to this condition, eighteen cases. Chronic constipation, accompanied by hemorrhoids, ten cases. Contrary to the experience of Buckley,[7] the hemorrhoids were not aggravated by phenolphthalein.

Catarrhal jaundice, two cases, in both of which were acholic stools. In neither case was more phenolphthalein required than in cases where the stools showed abundance of bile, although both patients were quite constipated. The remaining cases included: influenza, eleven cases; acute and chronic rheumatism, seventeen cases; neurasthenia, seven cases; hypochlorhydria, ten cases, and hyperchlorhydria, thirty-five cases. Of the four cases requiring large doses three were diagnosed spastic constipation; each patient took from thirty to forty grains for at least two weeks without satisfactory results, but without any symptoms of intoxication.

The fourth case was that of a man, 68 years old, with benign stenosis of the pylorus contracting the opening so that a bead three-eighths of an inch in diameter was the largest that passed through the stomach. This patient requires from forty to sixty grains of phenolphthalein daily, and has taken such doses for eighteen months. Of other cathartics tried, all require from five to eight times the usual dose, and most of them produce disagreeable symptoms, such as cramps and tenesmus.

I have secured better results from using phenolphthalein in powder than when compressed into tablets, or even when given in capsule. Usually I prescribe 2 drams of the powder, and direct the patient to take what will lie on a dime (about 3 grains) before going to bed. It is best taken by placing it on the tongue and taking a swallow of water. The powder is tasteless and odorless, and as a rule is not objectionable; the dosage is easily regulated by the patient.

General Conclusions.—Phenolphthalein probably belongs to the class of intestinal irritants, but its action seems to be accompanied by less discomfort than the majority of cathartics of this class.

It is nontoxic, at least in doses up to 25 or 30 grains. It is extremely stable, very little if any being broken down in passing through the body. A little is absorbed, but is excreted by the kidneys as such.

The average dose may be placed at from 1 to 5 grains, best given in the powdered form, either at night or in divided doses after meals. In cases of hyperacidity it can be advantageously combined with an antacid powder.

REFERENCES.

1. Chemiker Zeitung, August 11, 1900.
2. Therapie der Gegenwart, May, 1902.
3. British Medical Journal, 1902, II., 1224.
4. Progrés Médical, Paris, 1903, 3 S. XVII., 463.
5. Zeitschrift für Medizinalbeamte, No. 12. (Abstract in Apotheke Zeitung, No. 59.)
6. Gazzetta degli Ospedali di Milano, No. 96,995.
7. British Medical Journal, 1905, I., 32.

Clinical Department.

Acute Dilatation of the Stomach—Report of an unusual case.

W. R. Houston, A.M., M.D., Pittsburg, Pa., in the *Jour. A.M.A.*

Patient.—Mrs. T., a moderately well-nourished woman, aged 47, was seen at 2 a.m., August 16, 1908, at the City Hospital in Augusta, Ga. She had been brought in from a Sunday excursion train returning from Savannah, after an exhausting day's outing that involved ten hours on the train and seven hours on the seashore. She had been feeling well up to 9 p.m., when she was taken with abdominal pain after having eaten several bananas. On the train she had already had three-fourths of a grain of morphine, by mouth, and two drinks of whiskey. There was a history of previous attacks which had been relieved by these medicines.

Examination.—I found the patient with a pulse of 110, full and regular, temperature normal, extremities cold, and complaining bitterly of pain in the abdomen. The pain was not localized but referred more to the upper quadrants, and was lessened by pressure. The patient showed a remarkable abdominal distention. The distention was at first more marked on the right side, but in course of time became everywhere the same. Palpation showed a highly developed drum-like hardness of the abdominal walls, and a uniform dull tympany was observed. The heart and liver were considerably displaced upward.

Treatment.—Though the history was that of an obstipation of some days' standing, repeated asafetida enemas gave no relief and the water returned clear and with little flatus. Four attempts were made to wash out the stomach. The tube, which unfortunately was of too small calibre (25 Fr.) was introduced apparently into the stomach, but the water came back almost immediately bringing only a little bloody mucus. This was thought to be due to the great pressure of gas in the intestines. Several attempts to administer water by mouth, four ounces at a time, resulted in the regurgitation of the clear water after ten or fifteen minutes. At 4 a.m. the patient's pulse began to grow rapidly quicker and weaker. The breathing became gradually shallower.

Consultation.—Dr. W. H. Doughty was called in as a consulting surgeon. An exploratory laparotomy was decided on, looking to the probable necessity for an enterostomy. Before anything could be done, however, the patient died at 7 a.m.

Postmortem Examination of Abdomen.—An autopsy was declined, but as the undertaker thought it necessary to let out the gases before giving up the body for transportation, an opportunity was offered for a casual examination of the abdominal contents. The abdominal distention was found to be due solely to the distention of the stomach. The stomach extended to within an inch of the symphysis, and pressed against the lateral walls of the abdomen on both sides from top to bottom. The antrum was pouched out under the liver on the right so that it extended four inches to the right of the first part of the duodenum. The intestines seemed normal and contained the usual amount of gas. They were quite hidden by the stomach. When the wall of the stomach was punctured there was a loud explosion of gas. The greater curvature retracted to a position an inch below the navel. The lateral distention was little affected. There seemed to be no gastroptosis, but the conditions suggested a chronic dilatation preceding the acute. The duodenum and pylorus showed no thickening or infiltration. There was a half-pint of dark acid contents in the stomach.

As to the physics of the conditions here discovered, I refer to the experimental studies of Braun and Seidel. The esophagus enters the cardia obliquely. The closure of the cardiac orifice is maintained chiefly through lateral pressure exerted by the musculature of the fundus. When the fundus is inflated the pressure is increased. In the case recited the closure had become so great as to block the passage of a rather too flexible stomach-tube and cause it, evidently, to double on itself. The antecedent chronic dilatation had prepared the way for a kinking of the first part of the duodenum, and, as the antrum was forced further to the right by the increasing distention, the pylorus became more and more tightly closed. The first impulse to the acute attack may have been given by an exaggeration of chronic motor insufficiency induced by the fatigues of the day.

But for the unfortunate misinterpretation of the symptoms, the patient might doubtless have been rescued. Death resulted apparently from shock.

Preauricular pain and tenderness points to an enlarged lymphatic gland, a decayed tooth, an affection of the parotid, or a neuralgia of the fifth nerve; auricular tenderness itself indicates some affection of the auricle or the external canal; post-auricular tenderness may be hysterical or indicate mastoid disease.—*American Journal of Surgery.*

A Diphtheria "Carrier":—Persistence of the Klebs-Loffler Bacillus nine months after attack.

THOMAS STRAIN, M.B., CH.B, GLAS., D.P.H. CANTAB, Resident Medical Officer of the Enfield and Edmonton Joint Isolation Hospital, Winchmore Hill, in *The Lancet.*

The patient, a nursemaid, having her home in this vicinity, was admitted into the Enfield and Edmonton Isolation Hospital, in July of this year, with the following history. While following her vocation in Somersetshire, she developed in December of last year a severe attack of diphtheria, with palato-pharyngeal paralysis. She was isolated and treated with diphtheria antitoxin. Before being discharged from hospital, swabs were taken from the nose and throat, and were submitted to bacteriological examination, and the patient was declared to be free from infection. Thereupon the girl went to a convalescent home in Devonshire, where she was further examined and was declared to be free from the diphtheria bacillus. She now secured another situation, where she was for ten days, then one of her charges contracted diphtheria; the maid's throat and nose were examined bacteriologically once more and the Klebs-Löffler bacillus was found to be present. She now returned to Devonshire, where she was isolated and treated for five weeks, when she was again examined and declared "free." Again she became nursemaid to a family in Cornwall, and after being there for three weeks one of the children in her care developed diphtheria, and again it was found that the Klebs-Löffler bacillus was present in her nasal passages. The maid now, very naturally, became alarmed and depressed, left her situation, came to her home, where she was seen by her family medical attendant, who advised her to go to hospital. When she was admitted on July 28th she was not suffering in any way, but the Klebs-Löffler bacillus could be cultivated from the swabs from her nasal passages, while on each occasion the swabs from the throat were "negative." She was treated by local remedies, as antiseptic douching, swabbing, and spraying, with glycothymolin, cyllin, chinosol, and chlorine water. During the six weeks that she stayed in hospital she was submitted to weekly swabbings of the nose and throat: the information gained was that while the throat was free the nasal passages harbored the bacillus. It was also observed that the bacilli were only intermittently present in these passages, one swab, or perhaps two, giving a negative result on cultivation, whilst another swab would give a positive result, notwithstanding that each swab was thoroughly applied to the affected passages on a day on which no antiseptics had been used.

It would appear from such evidence that the bacilli were only intermittently present in the nasal passages, suggesting one of the sinuses opening into the nose as affording a nidus, periodically discharging its contents into the meatus, although in this case at no time was there any nasal discharge.

The following are points of importance in the case: (1) the manner in which diphtheria may be communicated to children; (2) the importance of swabbing both the nose and throat; (3) the remarkable persistence of the Klebs-Löffler bacillus after disappearance of the clinical signs; and (4) in isolation hospitals the necessity of frequent and *repeated* swabbings previous to discharging cases of diphtheria.

The bacteriological examinations were undertaken by Dr. R. Haldane Cook, the medical superintendent of the hospital, and by myself.

Case of Gastric Tetany. C. L. Soper, M.D., Wakefield, Mass., in *M. R. of R.*

Mrs. W. F.; 45 years old; native of Nova Scotia; married at 24; has had four pregnancies; children all living; eldest 17, youngest four years; has had measles, whooping cough and mumps; has a good family history, two of her sisters and three brothers being alive and enjoying good health.

The patient commenced work at the age of 13; was troubled with gaseous eructations in later girlhood.

After she came to this country at the age of 23 she came under medical care and has so continued.

After the birth of a child six years ago she became decidedly worse and has never regained the lost ground. Her symptoms were distress after eating, eructations of gas, vomiting of intensely sour material, flatulence, feeling of lassitude, loss of flesh.

In March, 1903, swelling appeared about the ankles, which gradually extended as high as the lower edge of the ribs.

Upon her remaining still, the swelling would gravitate to the most dependent parts of the body.

Face usually swollen in the morning. Urine very scanty, though about normal in color. Under treatment this condition passed away in about three months, allowing her to return to her household duties.

She now had occasional attacks of vomiting, and in the matter ejected there was sometimes found undigested particles that were known to have been eaten one week; or, in one case, 10 days before.

In October, 1904, a severe vomiting attack set in, accompanied by scanty urine. This continued three days, when she noticed a prickly feeling in the hands and feet. Twitching of the extremities then set in, and muscular cramps; finally tonic spasm of the flexors, particularly of the hands and wrists, spasm of the facial muscles giving a very pronounced *risus sardonicus.*

This condition lasted about 30 minutes.

This condition returned five hours later with greater violence than in the first attack, all of the strictly voluntary muscles being more or less involved.

This condition continued for three hours, with slight remissions, lasting 10 or 15 minutes, followed by exacerbations of an equal length of time.

Pupils slightly contracted; mind entirely clear.

Spasm did not disappear under chloroform. Contact of external objects with the skin had no effect upon the tetanoid condition.

The skin was dry and wrinkled.

January 1, 1905, after vomiting, she became entirely rigid and remained so for about two minutes.

On January 9, 1905, the patient consulted Prof. Heinrich Stern, of New York, at his clinic in the College of Physicians and Surgeons in Boston. The diagnosis made by Professor Stern was gastric dilatation, a stomach capacity of 10 liters and gastric tetany. The diet prescribed consisted of proteids only, with the addition of yolks of eggs. All carbohydrates were interdicted.

The patient adhered to this diet for almost six months, and during this time was entirely free from gastric trouble and the tetanoid manifestations. In the latter part of June she commenced to eat small amounts of starchy foods, such as graham crackers. The ingestion of the carbohydrate nourishment was followed on July 1 by a return of the tetany in a mild form.

She remained practically free from symptoms of the disease until August 18, when, after eating a graham cracker, she had a severe attack, during which she vomited large amounts of liquid having a very strong odor of yeast.

During the spasm which followed the patient lay on her back, the legs nearly straight and parallel with one another, the axis of the foot parallel with that of the leg, the foot being in the same position as a ballet dancer when standing on her toes. The trunk straight, the elbows, resting on the bed, were pressed strongly against the body, the forearm strongly flexed on the arm, the wrist drawn down until the skin shone white and bloodless, the fingers stiff and inflexible, pointed toward the centre line of the body.

The jaws were locked and the face twisted into a hideous grin; the breathing jerky and irregular.

I was assured that much the same condition had existed for as much as 30 minutes before my arrival, and it continued for 15 minutes longer, when slight relaxation followed the vigorous administration of chloroform. Entire relaxation did not take place for nearly an hour.

At the end of that time, however, a slight perspiration set in and the muscles returned quickly to their normal condition. During this attack the mind remained entirely clear and the pain was complained of as being "terrible."

The absorption of nearly a liter of normal saline solution by way of the rectum did not ward off the above attack. Urine normal in amount; bowels slightly constipated.

One week later the woman is doing her usual household work.

Large Echinococcus Cyst of the Liver; Operation and Recovery.

Herman E. Hayd, M.D., M.R.C.S. Eng., Buffalo, N.Y., in the *Buffalo Med. Jour.*

The tenia echinococcus is a variety of tapeworm found in the dog, and occasionally in the wolf and jackal, but very rarely in our native North American animal; in fact, only one authentic case is reported, and that by Curtice, of Washington, D.C. Numerous other observers, such as Osler and Clement, Sommer, Stiles, and Hassall of the Bureau of the animal industry, have made many dissections of many different varieties of dogs, and have never once found it. It is a tiny cestode four or five millimeters in length, and consists of only three or four segments, of which the terminal one alone is mature. The head is small, and provided with four sucking disks, a rostellum, and a double row of hooklets. The ripe segment contains about 5,000 eggs. It inhabits the upper intestines, and is seen as a little, white, threadlike body, closely adherent among the villi.

To the abdominal surgeon it is of especial interest, since it produces in man in its larval stage a disease which is termed hydatids, and which is developed in various organs of the body, especially the liver, where it occurred in 73.7 per cent. of the recorded cases. It also attacks the lungs, pleura, kidneys, the muscles and dermis, the brain, the female genitalia, and the bones and eyes. In this country the disease is exceedingly rare, and when found it is usually in the foreign-body individual, but in Iceland, where dogs are used freely, and are in such intimate and constant association with the human being, the disease is so common that it is referred to as the "Liver Plague," and one in every seven or ten deaths is due to it.

In Australia it is also very common, and in certain parts of Germany, and in Winnipeg, among the Icelandic population, quite a number of cases have been found, but only one case is reported in a Canadian-born offspring. The eggs are voided in large numbers by the dog, and are deposited in water or on the various vegetables we use as food, or they may be conveyed from the body of the dog by hands to mouth. The egg is swallowed and gets into the stomach or intestines, and there its surrounding wall is digested or dissolved off, the embryo is freed and bores its way through the mucosa into a blood vessel, and is carried to various parts of the body. Wherever it makes a connection, an inflammatory exudate is thrown out which surrounds the cell, and subsequently becomes its protecting envelope or capsule. Inside of this capsule the parasite continues to grow; it consists of two layers, an outer lamellated structure called the cuticula, and an inner granulocellar—the parenchyma; from this inner layer, the secondary or daughter cysts develop, and from them tertiary or granddaughter cysts, by a process of evagination; and on the inner surface of the cysts, whether primary, secondary, or tertiary, the heads or scolices of the immature worm are formed.

The disease is most common between the age of twenty-four and thirty, and the symptoms produced depend upon the organs involved, the size of the tumor, and the inconvenience which results from the pressure and contact upon other structures. The parasite produces no specific symptoms of itself, and its presence might not be detected were it not for the irritation, inflammation, and hyperplasia of the organ which shelters it; but the discomfort is often so slight that the disease remains unrecognized, and is only found out at post-mortem. Sometimes the cyst grows rapidly, and its capsule is thinned from pressure necrosis and ruptures, the contents of the sac gets into one or more of the body cavities, and may produce very serious inflammatory disturbances, or an abscess forms and points under the skin, and either breaks or is relieved by an operation.

Polypi in the ear (as in the nose) indicate diseased bone conditions. Removal of the polyp does not prevent recurrence; removal of the diseased bone does.—*American Journal of Surgery.*

Therapeutics.

The Local Use of Epsom Salts in the Primary Dressing of Burns and Scalds.

Aside from the well-known internal uses of Epsom salts, we can derive most gratifying results from their local employment in the primary dressing of all forms of scalds and burns. Pain is almost instantly relieved and inflammation cut short and reduced. There is no fear of toxic effects. We can always expect to find these salts near at hand, and can use them for burns on any part or parts of the body. No skill or special precautions are required in their application. In case of a burned hand or foot, make as strong a solution of salts as you can and immerse the limb, letting it remain as long as there is pain on removing it from the solution.

If it is not convenient to use the concentrated solution, then employ the dry salts, and cover with a wet cloth, or make a thick paste and apply it to such parts as the eyes, nose or mouth, or wherever the solution is not suitable. I find that Epsom salts used in the above described manner are oftentimes all the dressing needed, but the object of this brief paper is to impress you with the superiority of this treatment as a primary dressing until others can be obtained. Remember the main points of advantage:

Instant relief;
Reduced inflammation;
Non-toxic effects;
Easy to wash off;
The cheapness of the dressing and the fact that it is always at hand.

If by this paper the attention of the profession is directed to a simple, perhaps unknown, method which alleviates pain and assists in restoring the unfortunate sufferer quickly to his normal condition, I shall feel amply repaid for the effort, and thankful to this Association for its indulgence.—*M. N. Stowe, M.D., Jesup, Ga., in International Journal of Surgery.*

When paraffin is injected subcutaneously allowance should be made for increase in the size of the mass by the growth of connective tissue around it.—*American Journal of Surgery.*

Surgical Treatment of Tuberculous Cavities of the Lung.

In tuberculous patients presenting cavities of sufficient size to render an accurate diagnosis possible, major operative procedures are rarely indicated owing to the low state of their general health. In isolated cases, however, where the cavity communicates by a fistulous passage with the external thoracic wall, it may be advisable to resort to surgical intervention, which has sometimes proved very beneficial. Dr. Bessel-Hagen has reported such a case to the Surgical Union of Berlin. The patient, who had previously suffered with cough, developed a small abscess over the upper part of the sternum, with a slight infiltration over the right clavicle. The abscess was opened by a T incision, and it was found that fistulous passages extended toward the right into the pectoralis major and toward the left around the sternum into the deeper parts. After they had been laid open, the upper part of the sternum with the sternal attachment of the ribs was removed, preserving the sternoclavicular joint. Behind the removed bone a larger abscess cavity was exposed, with fistulous passages, which ran upward into the area of infiltration above the clavicle, backward to the vertebral column, and toward the right, below the first rib, into the lung substance. All the tuberculous tissue as far back as the vertebral column, as well as two tuberculous mediastinal glands, were removed. To follow the course of the fistula extending into the right lung a larger piece of the first rib had to be excised and the internal mammary artery ligated. The soft parts covering the fistulous passage were divided until access was gained to a large pulmonary cavity. This was found to contain a thin purulent fluid. The walls were quite smooth, containing only a few caseous foci, which were carefully removed with the sharp curette. The operation had to be constantly interrupted on account of the frequent paroxysms of cough. The cavity was tamponed with iodoform gauze. Recovery was uneventful, and the later course of the case has been favorable, with marked improvement of the nutrition, and disappearance of all pathological appearances in the lung.—*International Journal of Surgery.*

A MEDIASTINAL tumor may be present for some time without other symptoms than cough, expectoration, loss of flesh and slight fever—thus simulating pulmonary tuberculosis. A skiagraph will determine the condition; laryngoscopy is also helpful, for adductor paralysis is frequently an early sign.—*American Journal of Surgery.*

Proceedings of Societies.

ONTARIO MEDICAL ASSOCIATION.

The next annual meeting of the Ontario Medical Association will be held in Toronto on June 1st, 2nd and 3rd, 1909. The following officers were elected last year to look after the interests of the Association at the coming meeting: President—Dr. H. J. Hamilton, Toronto. Vice-Presidents—Dr. R. R. Wallace, Hamilton; Dr. A. Dalton Smith, Mitchell; Dr. A. M. McFaul, Collingwood; Dr. Geo. Field, Cobourg. General Secretary—Dr. E. Stanley Ryerson, 243 College St., Toronto. Assistant Secretaries—Dr. Samuel Johnston, 169 Carlton St., Toronto; Dr. J. E. Davey, 145 King St. West, Hamilton. Treasurer—Dr. J. Heurner Mullin, 201 James St. South, Hamilton. Chairman Committee on Papers and Business—Dr. Herbert A. Bruce, 64 Bloor St. East, Toronto. Chairman Committee on Arrangements—Dr. Bruce L. Riordan, 73 Simcoe St., Toronto.

The Committee again decided to adopt the system of dividing up into sections, of which the following is a list, with their officers:

Surgery—President, Dr. G. A. Bingham; Secretary, Dr. A. B. Wright.

Medicine—President, Dr. W. H. B. Aikins; Secretary, Dr. F. A. Clarkson.

Obstetrics and Diseases of Children—President, Dr. Adam Wright; Secretary, Dr. J. A. Kinnear.

Eye, Ear, Throat and Nose—President, Dr. D. J. G. Wishart; Secretary, Dr. C. Campbell.

Preventive Medicine—President, Dr. C. Sheard; Secretary, Dr. C. J. Hodgetts.

General sessions will be held in the afternoons and on one evening, the Sections of Surgery and Medicine meeting every morning, and one of the Special Sections on each morning.

The Committee on Papers and Business have been successful in getting promises of papers from the following men: Dr. John B. Deaver, Philadelphia; Dr. E. F. Cushing, Cleveland, on "Copious Water-Drinking in Typhoid Fever"; Dr. W. P. Manton, Detroit; Dr. Little, Montreal; Dr. C. H. Vrooman, Winnipeg; Dr. A. Baines, Toronto; Dr. McFaul, Collingwood;

Dr. Slemons, New York; Dr. McDonald, New York; Dr. J. M. Elder, Montreal; Dr. J. M. Rogers, Ingersoll; Dr. Hadley Williams, London; Dr. H. B. Anderson, Dr. W. McKeown, and Dr. C. B. Shuttleworth, Toronto; Dr. E. Ryan, Kingston.

In order to get in closer touch with the various City and County Medical Societies throughout the Province, a motion was passed making the Presidents of these Societies Corresponding Members of the Committee. As some difficulty has been encountered in securing their names, the Secretary will be much obliged if the gentlemen occupying this position will send him their names and addresses. They will be kept informed from time to time of the work done by the Committee.

Physician's Library.

Vaccine Therapy and the Opsonic Method of Treatment. A short compendium for general practitioners, students and others. By R. W. Allen, M.D., B.S. (Lond.), late Pathologist to the Royal Eye Hospital. Late Gull Student of Pathology, Guy's Hospital. Second edition. Price, 7s 6d, net. London: H. K. Lewis, 136 Gower St.

As we were not awarded the pleasure of reviewing the first edition of this timely book, we cannot tell particularly wherein there is any improvement over the first. No doubt the demand has been so great that a second edition has been essentially necessary. The first edition was issued in November, 1907. Since that time the evidence has been conclusive that vaccine therapy has come to stay. The profession will welcome this second edition.

A Text-Book of Diseases of Women. By Chas. B. Penrose, M.D., Ph.D., formerly Professor of Gynecology in the University of Pennsylvania. Sixth revised edition. Octavo of 550 pages, with 225 original illustrations. Philadelphia and London: W. B. Saunders Company. 1908. Cloth, $3.75 net; half morocco, $5.25 net. Canadian agent: J. A. Carveth & Co., Ltd., Toronto.

On five former occasions, it has been our pleasure to give notice to this admirable book. It speaks well for Penrose's " Diseases of Women," when one knows this is the sixth revised edition. The increase in knowledge regarding gynecology has called for a revision. Originally written for the medical student as a text-book, demand for it on the part of the student who had entered upon and was practising medicine called for edition after edition, until to-day Penrose's book is one of the best known and widest used books on the subject of gynecology. It goes straight to the subject at the very start, embryology, anatomy, physiology, etc., having been eliminated.

Diseases of the Skin and the Eruptive Fevers. By JAY FRANK SCHAMBERG, M.D., Professor of Dermatology and Infectious Eruptive Diseases in the Philadelphia Polyclinic and College for Graduates in Medicine. Octavo of 534 pages, illustrated. Philadelphia and London: W. B. Saunders Company. 1908. Cloth, $3.00 net. Canadian agent: J. A. Carveth & Co,, Limited, Toronto.

This is a book which will be very acceptable to general practitioners and medical students. It is nicely printed, beautifully and elaborately illustrated for a book of its size—534 pages; concise, practical; a model of a working handbook on these two subjects. It is right up to date: three chapters on Actinotherapy and Radiotherapy and one on radium. Those on syphiloderma, small-pox, and especially chicken-pox, are, we think, for a work of this size and scope exceptionally good. A striking feature of the book is the many original illustrations. Some of these particularly show "before and after" treatment, as in epithelioma, etc. It gives us pleasure to testify to the undoubted value of this book.

Obstetrics for Nurses. By JOSEPH B. DELEE, M.D., Professor of Obstetrics in the Northwestern University Medical School, Chicago. Third revised edition. 12mo. of 512 pages, fully illustrated. Philadelphia and London: W. B. Saunders Company. 1908. Cloth, $2.50 net. Canadian agent: J. A. Carveth & Co., Toronto.

Here is a little work which, if we are not greatly mistaken, will prove a god-send not only to those qualifying for the nursing profession, but also to many medical men, and also to many women who are possessed of a laudable desire to have an up-to-date knowledge of the management of a normal labor. The text is very clear, and the illustrations, excellent, as well as numerous, are nearly all reproductions of photographs of actual scenes.

To *see* this little book, is to *desire* it: then, you naturally buy it.

Gynecology and Abdominal Surgery. In two large octavos. Edited by HOWARD A. KELLY, M.D., Professor of Gynecologic Surgery at Johns Hopkins University; and CHARLES P. NOBLE, M.D., Clinical Professor of Gynecology at the Woman's Medical College, Philadelphia. Large octavo volume of 862 pages, with 475 original illustrations by Mr. Hermann Becker and Mr. Max Brodel. Philadelphia and London: W. B. Saunders Company. 1908. Per volume: Cloth, $8.00 net; half morocco, $9.50 net. Canadian agent: J. A. Carveth & Co., Limited, Toronto.

In a former number of this journal we had the pleasure of reviewing the first volume of this great work, and it has afforded us no little satisfaction to peruse this volume. To attempt to give anything like a complete review of it, however, is about as feasible as describing the various exhibits at a World's Fair, in one page! The articles dealt with in this volume are: Complications following operations, Cesarean section, operations during pregnancy, the operative treatment of sepsis in the child-bearing period, extrauterine pregnancy, diseases of the female breast, operations upon the gall-bladder, bile ducts and liver, operations upon the stomach, pyloroplasty, intestinal surgery, operations for diseases of the vermiform appendix, surgery of the pancreas, operations upon the spleen, tuberculosis of the peritoneum, penetrating wounds of the abdomen, hernia, the use of drainage in abdominal and pelvic surgery, surgery of the ureter, and surgery of the kidney. Each subject is so exhaustively dealt with, both in the matter of history, differentiation, and details of operation, that it would seem like making an invidious distinction to single out any particular writer's article.

To sum up, therefore, in a general way, one may draw attention to the excellent, clear text, and the almost prodigal display of illustrations, by no means the least valuable details in the general excellence of this immense work. What is gospel today (in surgery) is out of date to-morrow, so rapid is the advancement in this branch of the healing art; but one feels tempted, nevertheless, to predict that for a goodly time to come, Kelly and Noble's "Gynecology and Abdominal Surgery" will undoubtedly prove a classic to a great many general practitioners as well as surgeons on this continent.

A Text-Book of Operative Surgery. Covering the Surgical Anatomy and Operative Technic Involved in the Operations of General Surgery. Written for Students and Practitioners. By WARREN STONE BICKHAM, Phar.M., M.D., Visiting Surgeon to Charity and Touro Hospitals, New Orleans. Third Revised Edition. Octavo of 1,206 pages, with 854 illustrations, entirely original. Philadelphia and London: W. B. Saunders Company, 1908. Cloth, $6.50 net; half morocco, $8.00 net. Canadian agent, J. A. Carveth & Co., Ltd., Toronto.

It can hardly be deemed an easy matter to offer a comprehensive review of so elaborate and extensive a work as this, in the limited space at our command. And even if we were able to enter into a detailed description of the work, it must, at best, give the reader but an indifferent idea of the tremendous scope of this very eminent work. Neither can one rest content to indulge in a few terse superlatives in recognition of its merits: such a notice might pass equally well for a happy pocket hand-book on any subject.

Let us, therefore, try to do the author what brief justice we may, the while we heartily congratulate him on the complete success of his stupendous undertaking.

At the outset, it may not be amiss to remind our readers that this splendid work has in the short space of three years reached its third edition—a circumstance which must be very gratifying to the author, as well as to the publishers.

The work is divided into two parts, the first embracing thirteen chapters, and the second, eight chapters. The first part deals with operations on arteries, veins, lymphatic glands and vessels; nerves, plexuses and ganglia; bones, joints, muscles, tendons and tendon sheaths, ligaments, fasciæ, and bursæ; also amputations and disarticulations, and excisions and osteoplastic resections of bones and joints. Part II. deals with operations upon the head, spine and spinal cord, neck, thorax, abdominal region, male genital organs, female genital organs, and operations for herniæ.

It is to be expected that, even in the most up-to-date work, the operative procedures in all branches of surgery will continue to exhibit new methods. The details of Spence's and Larrey's operations for disarticulation at the shoulder joint, for example, remain much the same now as when first advocated. But in the domain of the newer and more highly developed branches of surgery, such as that of the abdomen and the head, Dr. Bickham has given us a wealth of detail that is truly satisfying. Take, for example, Pylorectomy. Here we find, in minute and lucid detail, Mayo's, Kocher's, and Billroth's methods, followed by after-treatment and comments. Here, too, one can look up the latest mastoid operation, or the details of Kraske's operation for excision of the rectum; and every operation beautifully illustrated. One detail that appeals to us very much in this work is the author's method of giving a special heading to the "Incision," while under "Operation," the various steps are given in numbered paragraphs. And so we might go on indefinitely, drawing attention to one good feature after another, but perhaps enough has been said to indicate the real worth of the work.

The reader may have observed, at the head of this notice, that the work is published by the W. B. Saunders Company, of London and Philadelphia, which is tantamount to saying that the text and general craftsmanship of the volume are all that could be desired. Even at the risk of appearing somewhat undignified, we are tempted to say, "Here's to you, Dr. Bickham, and—more power to your elbow!"

International Clinics. Vol. III. Eighteenth Series. 1908. Philadelphia and London: J. B. Lippincott Company.

The third volume of this admirable quarterly has original articles on treatment, medicine, surgery, gynecology, pediatrics, orthopedics, psychiatry, neurology, ophthalmology, rhinology and pathology. An examination of the names of the authors shows many well-known names in the medical profession. There are two colored plates, namely, "Adenoma of Thyroid," and "Type of Cells from Ascitic Fluid." The volume is profusely illustrated. One Canadian practitioner, Dr. F. N. G. Starr, Toronto, has an article entitled "Cleft Palate and Harelip."

Manual of Infectious Diseases. By E. W. Goodall, C.M.G., M.D., Lond., F.R.C.P. Second Edition, Revised and Enlarged by E. W. Goodall. Price, 14s. net. London: H. K. Lewis, 136 Gower Street, W.C.

The first edition of this book appeared in 1896. As medical students are now taken into our infectious and contagious disease hospitals in Canada, they will find in this book a fitting companion for their studies on these diseases. There are some additions in this edition. There are chapters on Glanders, Cerebrospinal Fever, and Plague. There are several illustrations. Altogether it makes a very complete handbook for others than medical students.

The Student's Handbook of Physiology. By the late ARTHUR CLARKSON, M.B., C.M., Ed., and DAVID A. FARQUHARSON, M.B., C.M., Ed., F.F.P. & S., Glas. Price, 12s. net. Edinburgh: E. & S. Livingston, 15 Teviot Place.

This text-book for medical students on the subject of physiology is a thorough yet concise exposition of the entire subject. It was completed by Dr. Farquharson after the untimely death of Dr. Arthur Clarkson, who was the author of a well-known Atlas and Text-Book on Histology. The sections on the Special Senses, and the chapter on the Central Nervous System are the work of Dr. Farquharson; all the rest that of Dr. Clarkson. The book is a convenient volume, quite aptly illustrated with a large number of new designs. We can heartily recommend it to our Canadian medical students.

Practical Points in Anesthesia. By FREDERICK-EMIL NEEF, B.S., B.L., M.L., M.D., New York. Price, Semi-De Luxe cloth, 60 cents, postpaid. Library De Luxe ooze flexible leather, $1.50, post paid. New York: Surgery Publishing Co., 92 William Street.

This very practical monograph presents the author's impressions on the correct use of chloroform, ether, etc., and is a simple and coherent working method, and is of particular value to those general practitioners who are so situated that the services of a trained anesthetist cannot be secured. Among the subjects covered are: Induction of Anesthesia, Cardiac and Respiratory Collapse, When Shall the Patient Be Declared Ready for Operation, Maintenance of the Surgical Plane of Anesthesia, Important Reflexes, Vomiting during Anesthesia, Obstructed Breathing, Use of the Breathing Tube, Indications for Stimulation, Influence of Morphine on Narcosis, General Course of Anesthesia, Awakening, Recession of Tongue after Narcosis, Post-Operative Distress, Minor Anesthesia with Ethyl Chloride, Intubation Anesthesia, etc., etc.

This extremely practical and useful little book is condensed to about fifty pages, but every page is replete with valuable data. Printed upon heavy India tint special Cheltenham paper with Cheltenham type, with marginal headings in contrasting colored ink.

The Physicians' Visiting List, for 1909 (P. Blakiston's Son & Co.), has reached us. This marks the fifty-eighth annual issue of this very useful little book, during whose life medical science has made greater progress, perhaps, than for five hundred years previous. Its very length of days bespeaks a popularity with the profession, which is a guarantee of its worth.

The Canadian Medical Protective Association

ORGANIZED AT WINNIPEG, 1901

Under the Auspices of the Canadian Medical Association

THE objects of this Association are to unite the profession of the Dominion for mutual help and protection against unjust, improper or harassing cases of malpractice brought against a member who is not guilty of wrong-doing, and who frequently suffers owing to want of assistance at the right time; and rather than submit to exposure in the courts, and thus gain unenviable notoriety, he is forced to endure black-mailing.

The Association affords a ready channel where even those who feel that they are perfectly safe (which no one is) can for a small fee enroll themselves and so assist a professional brother in distress.

Experience has abundantly shown how useful the Association has been since its organization.

The Association has not lost a single case that it has agreed to defend.

The annual fee is only $3.00 at present, payable in January of each year.

The Association expects and hopes for the united support of the profession.

We have a bright and useful future if the profession will unite and join our ranks.

EXECUTIVE.

President—R. W. POWELL, M.D., Ottawa.
Vice-President—J. O. CAMARIND, M.D., Sherbrooke.
Secretary-Treasurer—J. F. ARGUE, M.D., Ottawa.

SOLICITOR.

F. H. CHRYSLER, K.C., Ottawa.

Send fees to the Secretary-Treasurer by Express Order, Money Order, Postal Note or Registered letter. If cheques are sent please add commission.

PROVINCIAL EXECUTIVES.

ONTARIO—E. E. King, Toronto; I. Olmsted, Hamilton; D. H. Arnott, London: J. C. Connell, Kingston; J. D. Courtenay, Ottawa.

QUEBEC—H. S. Birkett, Montreal; E. P. Lachapelle, Montreal; J. E. Dube, Montreal: H. R. Ross, Quebec; Russell Thomas, Lennoxville.

NEW BRUNSWICK—T. D. Walker, St. John; A. B. Atherton, Fredericton; Murray McLaren, St. John.

NOVA SCOTIA—John Stewart, Halifax; J. W. T. Patton, Truro; H. Kendall, Sydney.

PRINCE EDWARD ISLAND—S. R. Jenkins, Charlottetown.

MANITOBA—Harvey Smith, Winnipeg; J. A. MacArthur, Winnipeg; J. Hardy, Morden.

NORTH-WEST TERRITORIES—J. D. Lafferty, Calgary; M. Seymour, Regina.

BRITISH COLUMBIA—S. J. Tunstall, Vancouver; O. M. Jones, Victoria; Dr. King, Cranbrooke.

Dominion Medical Monthly

And Ontario Medical Journal

EDITORS:

GRAHAM CHAMBERS, B.A., M.B. WALTER McKEOWN, B.A., M.D.

ASSOCIATE EDITOR:

T. B. RICHARDSON, M D.

MANAGING EDITOR:

GEORGE ELLIOTT, M.D.

Published on the 15th of each month. Address all Communications and make all Cheques, Post Office Orders and Postal Notes payable to the Publisher, GEORGE ELLIOTT, 203 Beverley St., Toronto, Canada

VOL. XXXI. TORONTO, DECEMBER, 1908. No. 6.

COMMENT FROM MONTH TO MONTH.

Foot and Mouth Disease, sometimes called epizoötic eczema, having broken out in New York, Pennsylvania and Michigan, the Canadian Department of Agriculture has taken prompt action in preventing its introduction into Canada. As the disease sometimes appears in man medical men will be interested in the symptoms as they appear in the human being. It may be transmitted to man through milk, butter and cheese, or may be inoculated through wounds. The symptoms appearing in man are: fever, disturbance of digestion, vesicles on the face (lips and ears), fingers, arms, female breasts, mucous membranes of mouth, pharynx, and conjunctiva; abdominal pains, vomiting. Although the disease is rarely fatal in cattle, in young persons it sometimes supervenes. It is said not to be conveyed by eating meat. The disease has not appeared in Canada for over thirty years.

The Term "Certified Milk," now very much in use in connection with the pure milk crusade in Canada and the United states, originated with Dr. Henry L. Coit, Newark, N.J. When, in the spring of 1887, Dr. Coit found himself confronted with the problem of artificially feeding his own infant son, he began to take a more intelligent interest in the question of pure, clean milk. After varying vicissitudes for several years, he was able to interest medical men to a great extent in it, and succeeded in founding the Essex County Medical Milk Commission in 1893. A dairyman was found who promised to live up to the requirements of this milk commission, who subsequently had the word "certified" registered in the United States Patent Office in 1904, it being distinctly understood that the use of the term should be allowed without question when employed by medical milk commissions. It was Dr. Coit who suggested the word to be applied, when the product conforms to the clinical requirements of cow's milk, fulfilling these three conditions: 1. An absence of large numbers of micro-organisms, and the entire freedom of the milk from the pathogenic varieties. 2. Unvarying resistance to early fermentative changes in the milk, so that it may be kept under ordinary conditions without extraordinary care. 3. A constant nutritive value of known chemical composition, and a uniform relation between the percentages of the fats, proteids, and the carbohydrate. The second commission was formed in 1898, five years later, and there are now about thirty operating in the United States. The standards for bacteria vary with the different commissions, a good many placing the maximum at 10,000 per cubic centimeter, though some go as high as 30,000 (about 15 c.c. to tablespoonful). The standard for fat, generally speaking, is 4 per cent. Very often the bacteria do not come nearly so high as the standard, averaging 5,000 to 6,000. Certified milk has been known to keep sweet forty-five days. Its average price is about 12 1-2 cents the quart. When dairies conform to the requirements of the medical milk commission, with whom they have legal contracts, as to ventilation, light and sanitary surroundings of stables, cleanliness and freedom from disease of all employees, proper veterinary inspection of cows, and thorough cleanliness in bottling, handling and refrigeration to 40 deg. F., certificates are issued to those dairymen, hence the term.

Should Doctors be the Issuers of Marriage Licenses?—This subject was given some attention in these columns before. It might be of sufficient importance to engage the attention of our provincial medical associations. In the degenerates, the tuberculous, the syphilitic, the gonorrheic, doctors know the unhealthy and evil consequences which follow in the wake of these marriages; and as preventive medicine is taking on such progressive strides the world over, this matter of the marriage of the unsuitable from the standpoint of disease will very soon come to the fore. Indeed, there are signs that sanitary laws will inevitably in the near future be applied to at least the syphilitic and gonorrheic. Advanced opinion on the social diseases advises medical inspection and examination prior to the consummation of the marriage rite. It is scarcely necessary to detail the numerous diseased conditions which follow in the wake of an unclean marriage contract. They are long since known and established in medical annals. One of the most terrible consequences is blindness in the offspring, the result of a latent gonorrhea in the male parent. In fact, it has been computed, on authority scarcely to be questioned, that in the United States from twenty to thirty per cent. of blindness is caused by gonorrheic infection. Morrow says, as regards syphilis, that unquestionably the most sombre chapter of marital syphilis is the murderous influence of the disease upon the offspring. Knowing from practically personal experiences the murderously evil results in the social diseases to the family, are physicians as abreast of the times in the sanitary aspect thereof, as they are in other directions? Public sentiment would not listen to the regulation or police surveillance of either disease. In fact, where that has been in vogue it seems to have lamentably failed. But it would seem as though the day were coming when they shall be placed under the control of the health officer like other contagious diseases. A great deal of good would accrue to the family and to society were this done, and were a medical examination, at least, required of the male, and the issue of the licence proceed from a member of the medical profession. One State of the American Union is proceeding in this direction at the present time. Before the Georgia legislature there is a bill looking towards a medical examination as a compulsory requisite before obtaining a marriage license. It would seem that the two would almost go hand in hand, as the physician could be empowered to withhold the license after the medical examination.

The Retirement of Dr. R. A. Reeve from the Deanship of the Medical Department of Toronto University is announced. For upwards of twelve years Dr. Reeve held this honorable position. That it was at times a laborious and trying one there is no doubt. He, however, was always able to bring to the discharge of his duties, energy, enthusiasm and tact. With the faculty and student body he was always popular. For the latter's interest he was ever indefatigable. He led the former, and presided over its deliberations with an unusual amount of common-sense and a spirit of fairness. He took a keen and very active interest in everything pertaining to the provincial university in its larger sphere, and did not confine his feelings and sympathies to the medical department. Ever urbane, always sympathetic and disinterested in personal aggrandizement, his tenure of office will be particularly remembered for the watchful care he took of the student body. He retires from his duties with the love and profound respect of a great many men who secured their degrees under his régime, as he has continued to command that of his confrères and contemporaries. We wish to his successor, Dr. C. K. Clarke, a like success in his administration.

Dr. W. A. Young, Managing Editor of the *Canadian Journal of Medicine and Surgery*, is, we are very pleased to announce, convalescing nicely after a very prolonged and severe illness.

News Items.

MONTREAL has been holding a Tuberculosis Exhibition.

DR. W. N. ROBERTSON has located permanently in Dunchurch.

SMALLPOX existed in fifteen centres in Ontario in October, with fifty cases.

DR. R. M. COULTER, Deputy Postmaster-General, is in Australia.

HAMILTON hospital nurses are to have a new Home, at a cost of $20,000.

DR. McGREGOR, of Waterdown, was thrown from his carriage and his thigh broken.

THE Western Hospital, Toronto, has been donated $25,000 by a citizen of Toronto.

DR. PANTELEON PELLETIER is mentioned as Speaker of the new Quebec Legislature.

THE total number of deaths in Ontario in October was 2,328, a death rate of 13.8 in 1,000.

DR. L. C. PREVOST, Ottawa, accompanied Sir Wilfrid Laurier on his trip to the Southern States.

BRITISH COLUMBIA medical examinations have recently been held, there being thirty-two candidates.

THE Hammond Fund for the institutions of the National Sanitarium Association has reached over $30,000.

DR. WILFRID GRENFELL, of Labrador fame, is on his annual six months' visit to Canada and the United States.

DR. D. J. GIBB WISHART, Toronto, has been promoted to chief of ear, nose and throat department of Toronto General Hospital.

The Royal Jubilee Hospital, Victoria, B.C., is contemplating extensive additions. During October they treated 172 patients.

Dr. Millyard, of Goderich, has gone on a six or eight months' absence, to be spent chiefly at the leading British and European hospitals.

Dr. J. I. Cassidy, formerly of Moorfield, Ont., but latterly of Brantford, has purchased the practice of Dr. McWilliams, of Drayton, Ont.

The Nu Sigma Nu Greek letter society for medical men met in bi-annual session in Toronto during the week ending the 28th of November.

St. Catharines, Ont., Marine Hospital treated 516 patients during the last hospital year. The hospital has a fund of $8,620 for a new building.

There were five hundred cases of typhoid fever in Ontario in October, with 126 deaths, as compared with 50 deaths in the same month in 1907.

Dr. Geo. D. Porter, Toronto, has been appointed assistant and travelling secretary to the Canadian Association for the Prevention of Tuberculosis.

Vancouver citizens have during the past four years placed $400,000 at the disposal of the Management Committee of the Vancouver General Hospital.

Prof. Ernest Rutherford, formerly professor of physics in McGill University, but now of Manchester, England, is slated to receive one of the Nobel prizes.

Dr. Clarence Hill, who has been assisting Dr. Gunn, of Clinton, has been appointed house surgeon of the New York Hospital for a term of two years.

The Canadian Medical Association meets in Winnipeg on the 23rd, 24th and 25th of August, 1909. Dr. H. H. Chown is chairman of the Committee of Arrangements.

Dr. A. T. Wilson, of the Toronto Provincial Hospital for the Insane, has been appointed superintendent at the similar institution at Cobourg, in succession to the late Dr. Hickey.

Drs. John Ball, of Hanover, and Hector N. McNeil, of Latchford, have been appointed associate coroners for Grey and Bruce Counties and Nipissing District, respectively.

Dr. Ferguson, Hensall, has sold his property and goodwill to Dr. Aikenhead, of London, and taken over the practice of his late brother, Dr. A. K. Ferguson, Bathurst Street, Toronto.

Dr. Harvey Smith, Winnipeg, Man., is east on a trip to Toronto, Montreal and New York. Dr. Smith is secretary to the Committee of Arrangements of the Canadian Medical Association.

Dr. W. T. Wilson, assistant superintendent of the Toronto Asylum, has been promoted to the superintendency of the Asylum at Cobourg, made vacant a month ago by the death of Dr. C. E. Hickey.

The Ontario Medical Council has communicated with the Crown Attorneys throughout the province, asking for reports of its members who may be accused of unprofessional practices of a criminal character.

The following have been admitted members of the Royal College of Surgeons: C. R. Rumming, E. M. Gideon, A. M. Rolls, G. S. Strathy, W. Taylor, of Toronto University, and E. A. Lindsay, McGill.

Dr. Ernest Jones, Bloor Street, Toronto, has been appointed pathologist and neurologist at the Toronto Hospital for the Insane. He succeeds Dr. J. G. Fitzgerald, who retired on October 1st last to accept an appointment in Boston, Mass.

The gift of a brick house, with several acres of ground, as the basis, together with an endowment fund of $25,000, to found a hospital, has been made to the township by Mrs. Gualco, Kincardine, Ont., who called together about sixty citizens at her home, Villa Kalisz, and handed the key of the house to the Mayor.

Dr. C. D. Parfitt, who was for six years physician-in-charge of the Muskoka Free Hospital for Consumptives at Gravenhurst, Ont., and has been for the last seven months resident consultant to that institution and the Muskoka Cottage Sanatorium, has resigned his position. Dr. Parfitt will remain in Gravenhurst and continue practice in pulmonary and laryngeal tuberculosis.

Dr. Edward Stubbs, Stratford, Ont., left recently for Rochester, Minn., where he will be joined by Mr. R. D. Forbes, F.R.C.S., also of Stratford, and together they will go to the North-West, and then through to the coast *en route* on a trip round the world. Dr. Stubbs intends making Vienna, Austria, his headquarters, while he takes a post-graduate course in the celebrated university there.

The Academy of Medicine, Toronto, at its last regular meeting was the recipient of a valued addition to its collection of portraits of eminent medical men in the presentation of the portrait of the late John Fulton, M.D., M.R.C.S., L.R.C.P., by his daughters, Miss Fulton, Mrs. Jull and Mrs. Fisher. Miss Fulton unveiled the portrait, and Dr. G. A. Bingham made the presentation address. Dr. Fulton at the time of his death, in 1887, was professor of surgery in Trinity Medical College, having been previous to that date professor of anatomy in the same school. He was a brilliant anatomist and surgeon, entirely devoted to his profession, esteemed by everyone for his many charming qualities and greatly beloved by his pupils, whose firm and generous friend he ever proved himself. The remainder of the evening was occupied in the delivery of an able address by Dr. Kinghorn, of Saranac Lake, N.Y., on "The Tuberculin Test in the Diagnosis of Pulmonary Tuberculosis."

An English-Chinese Lexicon of Medical Terms, prepared by Dr. Philip B. Cousland, has just been published in Shanghai. Though the author is an Englishman by birth, he has based his book largely upon the Medical Dictionary of Dr. George M. Gould, of Philadelphia, a high compliment to American scholarship. Dr. Cousland has recently published a translation of Prof. Halliburton's edition of Kirke's Physiology.

MEDICAL APPOINTMENTS TO MUSKOKA SANATORIA.—At a meeting of the Board of Trustees of the National Sanitarium Association, held at the head office, 347 King St. W., on Monday afternoon, two important appointments were made in connection with the Muskoka Cottage Sanatorium and the Muskoka Free Hospital for Consumptives. Hon. W. A. Charlton occupied the chair, and among others present were W. J. Gage, J. J. Crabbe, T. H. Bull, Ambrose Kent, Thos. Long, Dr. W. P. Caven and Dr. N. A. Powell. The resignation of Dr. C. D. Parfitt, as Resident Consultant, was accepted. Dr. Alfred H. Caulfield, of the Toronto General Hospital, was appointed Resident Pathologist, and Dr. W. S. Lemon was added to the Resident Staff of the Muskoka Institutions. Dr. W. B. Kendall continues in his position as Medical Superintendent of the two institutions. These appointments very greatly strengthen the medical position of the Sanatoria, the two new appointees holding prominent positions in the profession. Dr. Alfred H. Caulfield graduated in medicine in 1904. After graduating he became Assistant Bacteriologist in the Provincial Board of Health, and demonstrator of Bacteriology in the University of Toronto. Later he accepted the position of Interne in Pathology at the Toronto General Hospital, and was subsequently made the first resident pathologist of that institution. Spending a year abroad, he entered the laboratory as an assistant to Sir A. E. Wright, London, Eng. This was followed by a period in the laboratories of Dresden and Berlin. Dr. Caulfield, not only from his excellent work done in the laboratories of the Toronto General Hospital, but through papers published, has achieved a reputation not only in Canada, but beyond, and is recognized to-day as one of the foremost pathologists in Canada or the United States. Dr. W. S. Lemon took first scholarship on entering his medical course in Toronto, and finally carried off the Gold Medal, Brown's Scholarship, and Clark's Scholarship. After graduating, he took up a course in research work in the University, and was also for a time Resident Physician in the Toronto General Hospital, and has spent some time in general practice in Toronto.

Publishers' Department.

Oxolint Absorbent Linen.—This is a pure product of flax. It is chemically prepared in a way that makes it aseptic and antiseptic, and gives it an unequalled absorbency. While in general appearance it resembles absorbent cotton it greatly differs from that substitute in every essential particular. It is more hygienic. It is cooler and more soothing where there is inflammation. It is more fibrous and therefore less fuzzy and freer from adhesive particles. It is more elastic and does not mat and pack as cotton does when saturated. It is five times more readily absorptive than cotton. It acts instantly. It is odorless, and it tends to destroy odors. It retains its peculiar properties indefinitely. It does not deteriorate with age. Surgeons, physicians, professional nurses, dentists, druggists and editors of medical magazines have endorsed Oxolint as the Ideal Absorbent. It is better than cotton and costs but a trifle more. Its uses are not confined to medical needs. It has many important services in the home. It meets toilet requirements as no other similar preparation does. It is not only cleansing and purifying, it is also healing. It is valuable alike in the nursery and in the boudoir. It is far superior to a sponge in the bathing of infants, being aseptic and antiseptic, and, a fresh supply being used each time, there is no gathering of microbes or filth through the carelessness or negligence of the nursery maid. For the same reason it is a periodicity ideal. Its sanitary virtues make it a household treasure. After having had experience with it no family will be without it. Oxolint supplies a demand that has long existed, and represents a triumph of scientific discovery. There had been many times repeated attempts to secure a pure linen absorbent, and it took the inventor of Oxolint twenty years to develop and perfect the processes that so wonderfully convert raw flax into linen fibre ready to card for spinning or making into Oxolint in the space of a single working day. For more centuries than have historic record it has required from eleven to thirty weeks to do with flax what the new processes

For COUGHS and
THROAT IRRITATION

PINOCODEINE

"FROSST"

Each fluid drachm contains :—Codeine phosphate $\frac{1}{8}$ gr. combined with Pinus Strobus, Prunus Virginiana, Sanguinaria Canadensis, Populus Balsamifera and Chloroform.

As a routine expectorant, it is the same reliable product that has had the support of the profession for the past eight years.

STOPS COUGHING,
ALLAYS IRRITATION,
ASSISTS EXPECTORATION

Perfectly safe with patients of any age.

For GRADUAL or
SUDDEN HEART FAILURE

Elixir Digitalin Co. "Frosst"

Each fluid drachm contains :—Digitalin 1-100 gr.
Nitroglycerine 1-100 gr. Strychnine 1-50 gr.

The original product that has created the demand for this energetic stimulant.

CHARLES E. FROSST & CO.
MONTREAL, CANADA

do in eight hours. These wonderful processes are owned exclusively by Oxford Linen Mills, operating at North Brookfield, Mass. If you want some curious information about the treatment of flax and the manufacture of linen in this country and abroad, send for a copy of the illustrated booklet that the Company has issued. It is mailed free to applicants and is most interesting. Address Oxford Linen Mills, North Brookfield, Mass.

SANMETTO IN IRRITABLE BLADDER.—Sanmetto acted charmingly in my own case of irritable bladder, with frequent micturition, which was very annoying at night. I had tried saw palmetto, salix nigra, buchu, juniper, acetate potash, benzoic acid, etc., etc., etc., without any relief. After taking about two ounces of sanmetto I noticed an appreciable change for the better, and before finishing the bottle I was practically well. Being so well pleased with the results, I have placed sanmetto on my shelf, and am dispensing it. It is a charming combination, and I take pleasure in relating my experience with it.—*Geo. H. Riley, M.D., Bloomdale, O.*

PEPTO-MANGAN (GUDE).—Composition: An extremely palatable, non-irritant, non-astringent and promptly absorbable combination of the two essential, normal, metallic elements of the circulating blood, *i.e.,* iron and manganese, in the form of true organic peptonates. Each tablespoonful represents 3-4 gr. elementary iron and 1-4 gr. elementary manganese. Compatible and miscible in any desired proportion with water, milk, or white wines. Neutral in reaction and free from constipating effect or corrosive action upon the mouth or teeth. Suitable for administration to patients of all ages, and acceptable alike to adult and infant. Therapeutic Indications: Pepto-Mangan (Gude) is indicated in all conditions characterized by a diminution in the number of red blood cells or a deficiency of oxygen-carrying hemoglobin. Anemia of the so-called "idiopathic" variety, chlorosis and chlor-anemia, the secondary anemias of constitutional dia-

THE HOUSE OF QUALITY
REGISTERED

Fairweather's

FURS

TIME and hard wear are convincing tests of quality.

But to be sure her furs are right at the time of purchase is of most practical value to the buyer.

The reputation of the furrier you know is one of your best guarantees.

Our patrons include the best dressed and most critical buyers in Canada.

Good Workmanship
Dependable Service
Correct Style

These are the features of our goods which have placed them in the first ranks, not only in Canada, but all over the world.

Ladies' Fur-lined Coats, $35 to $175.
Men's Fur-lined Coats, $45 to $350.
Sealskin Jackets, $225 to $650.
Persian Lamb Jackets, $125 to $200.

Write for Catalogue "L"

J. W. T. Fairweather & Co.
84-86 Yonge Street, Toronto

theses, such as Bright's disease, tuberculosis, carcinoma and sarcoma, syphilis, malaria, etc., infantile anemia, consecutive to the exanthemata, pertussis, gastro-enteritis, etc., mal-nutrition; anemia due to hemorrhage, suppuration or sepsis; pernicious anemia, leukemia, and all other disorders attended with general blood devitalization. Dose and Administration: Pepto-Mangan (Gude) is generally administered in doses of one tablespoonful after each meal, either plain or diluted with water, milk, or white wine. Children, from one to two teaspoonfuls, according to age. M. J. Breitenbach Co., New York, U.S.A.

Eating Too Much and Too Often.—A great many people seem to think that it matters little what kind of material goes into the building of the human structure! They offer the body thistles and ask it to give back figs. They feed on thorns and expect to pick roses. Later, they find they have sown indigestion and are reaping ptomaines. It's a wonderful laboratory, this human body. But it can't prevent the formation of deadly poisons within its very being. Indeed, the alimentary tract may be regarded as one great laboratory for the manufacture of dangerous substances. Biliousness is a forcible illustration of the formation and the absorption of poisons, due largely to an excessive proteid diet. The nervous symptoms of the dyspeptic are often but the physiological demonstrations of putrefactive alkaloids. In order to carry out the important command, "Keep the Bowels Open," we are offered laxative antikamnia and quinine tablets, the laxative dose of which is one or two tablets, every two or three hours, as indicated. When a cathartic is desired, administer the tablets as directed and follow with a saline draught the next morning, before breakfast. This will hasten peristaltic action and assist in removing, at once, the accumulated fecal matter.

Safe Antiseptics in Gonorrhea.—Tincture of iodine irrigations in solution of from one to four drachms to a quart of hot water is said to be one of the safest and best antiseptics that can be used in gonorrhea. The strength of the solution and number of irrigations a day depends upon the stage of the disease. To keep the urine bland and non-irritating sanmetto should be administered in teaspoonful doses three or four times daily throughout the treatment. In case of extreme acidity of the urine one of the potassium salts will be found helpful.

R
11
C32
v.30-31

The Canada lancet and
practitioner

Biological
& Medical
Serials

PLEASE DO NOT REMOVE
CARDS OR SLIPS FROM THIS POCKET

UNIVERSITY OF TORONTO LIBRARY

STORAGE